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SALMON CATCH AND ESCAPEMENT STATISTICS FOR COPPER RIVER,  
BERING RIVER, AND PRINCE WILLIAM SOUND, 1993.

By

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and

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## ABSTRACT

The 1993 catch and escapement statistics for Pacific salmon *Oncorhynchus* species in the Copper River, Bering River, and Prince William Sound areas are summarized as a reference for management of the salmon resource. Catch information was compiled from commercial fish tickets, subsistence and personal-use fish permits, and a postal survey of sport fishermen. Escapement data were taken from aerial and ground surveys, side scan-sonar counts, weir counts, and brood stock counts. Stratified systematic samples of age, sex, and size were collected from salmon catches and escapements using standard sampling techniques for each select species, gear type, and fishing district.

Commercial, subsistence, personal-use, and sport fishermen harvested 9,502,385 salmon in the Copper River, Bering River, and Prince William Sound areas in 1993. Pink salmon *Oncorhynchus gorbuscha* were predominant in the combined total commercial catch from Prince William Sound, and >68% of the pink salmon total commercial catch were hatchery fish. The escapement index for all species and areas was 1,246,343 salmon. Temporal variations in age composition of the catch were observed for sockeye salmon *O. nerka* in the Copper River, Coghill, and Eshamy Districts, and for chum salmon *O. keta* in the Coghill and Eshamy Districts.

KEY WORDS: Salmon, *Oncorhynchus*, Copper River, Bering River, Prince William Sound, catch, escapement, age, length, sex, weight



## INTRODUCTION

Estimated 1993 Pacific salmon *Oncorhynchus* catches and escapements from the Prince William Sound management area were summarized and integrated with age, sex, and size composition data to provide the basic biological information necessary for effective management of the resource. This information can be used to predict run strength based on parent and brood year returns, evaluate hatchery contributions, and assess harvest policies designed to effect maximum sustained yield.

Harvest and escapement abundance data, as well as age, sex, and size information are collected annually in monitoring programs maintained by the Alaska Department of Fish and Game (ADF&G). Detailed harvest and escapement information for the Prince William Sound management area is presented by Merritt et al. (1993) and Donaldson et al. (1995). These estimates are combined with age, sex, and size data obtained in 1993 and summarized in this report by species for each sampled fishery. This report adds to the database established by Sharr and Peckham (1988), Sharr et al. (1988), Crawford and Simpson (1989), Crawford and Simpson (1990), Wilcock (1993), Moffitt et al. (1994), Moffitt et al. (1995), and Moffitt and Wilcock (1997). Detailed information for each fishery is presented in the Appendix.

The Prince William Sound management area is divided into 11 commercial fishing districts that encompass coastal waters and associated inland watersheds of the Gulf of Alaska between Cape Suckling and Cape Fairfield (Figure 1). The Copper River District (212) and Bering River District (200) to the east of Hook Point, Hinchinbrook Island, have historically been treated as a discrete unit termed the Copper/Bering River area (Figure 2). Prince William Sound (PWS) proper lies to the west of Hook Point and includes the Eastern (221), Northern (222), Coghill (223), Northwestern (224), Eshamy (225), Southwestern (226), Montague (227), and Southeastern (228) Districts. The Unakwik District, previously designated as District 222-50, was redesignated as District 229 in 1989.

### *Copper/Bering River Area*

Drift gillnets are the only legal commercial gear type in the Copper and Bering River Districts. Sockeye *Oncorhynchus nerka*, coho *O. kisutch*, and chinook salmon *O. tshawytscha* are the predominant species in the Copper River District harvest. In the Bering River District, sockeye and coho salmon predominate the catch. Pink salmon *O. gorbuscha* and chum salmon *O. keta* catches are considered incidental in both districts.

A subsistence fish wheel and dip net fishery on the upper Copper River extends from Chitina to Slana in the Glennallen Subdistrict of the Upper Copper River District (Figure 3). In addition, a personal use dip net fishery occurs in the Chitina Subdistrict which includes a few miles of the river near Chitina. These fisheries harvest a large portion of the sockeye and chinook salmon migrating through the area. Subsistence fishing is also permitted in the coastal commercial fishing areas simultaneously with commercial openings, but harvests of all species are generally low.

Sport fishermen in the Copper/Bering River area target primarily chinook and sockeye salmon in the upper Copper River drainage, and coho and sockeye salmon in a few coastal streams.

Hatchery runs of sockeye salmon to the Copper River originate from the Gulkana I and II streamside incubation facilities located on the Gulkana River in the upper Copper River drainage, and from remote releases of these fish into Crosswind and Summit Lakes.

Wild sockeye salmon in the Copper and Bering River Districts spawn in tributaries and lakes of the upper Copper River, small coastal streams and lakes in the Copper River delta, and tributaries of the Bering River (ADF&G 1962). Coho salmon spawn primarily in coastal streams, whereas chinook salmon spawn almost exclusively in tributaries of the upper Copper River (ADF&G 1964; Thompson 1964).

### *Prince William Sound Area*

Wild and hatchery salmon are harvested in several commercial fisheries throughout PWS; Terms used to distinguish these aspects of the commercial harvest are as follows:

*Commercial Common Property Catch* - all salmon harvested by the traditional competitive commercial fisheries (gillnet and purse seine) as opposed to *other commercial harvests* resulting from hatchery cost recovery, confiscated fish, or educational permits.

*Hatchery Cost Recovery Catch* or *Hatchery Sales Harvest* - all salmon caught and sold by private non-profit hatcheries to pay for their operating expenses. This catch is taken in *special harvest areas* (SHA) adjacent to the hatchery by fishermen under contract to the facility operators.

*Total Commercial Catch* - all salmon that are caught and sold commercially.

Purse seines are permitted in commercial common property fisheries in all districts of PWS, except the Eshamy District (225) where only set and drift gillnet gear are permitted and the Esther subdistrict (223-40) of the Coghill District before 21 July. Drift gillnets are also permitted in the Coghill (223) and the Unakwik (229) Districts.

Purse seine fisheries have historically harvested most of the pink and chum salmon total commercial catch, as well as significant incidental catches of sockeye salmon. Gillnet fisheries, having much smaller total harvests than purse seine fisheries, traditionally target sockeye salmon. In recent years large catches of pink and chum salmon have coincided with increased hatchery production of these species. Historically, harvests of chinook and coho salmon in PWS have been incidental, but fishermen have recently begun to target coho salmon returns to the Wally Noerenberg Hatchery on Esther Island. Initial returns of coho salmon to this facility began in 1987 from releases the previous year. Southwestern District purse seine fishermen also intercept

many coho salmon returning to the Wally Noerenberg Hatchery. Substantial coho catches also occur in Valdez Arm and Port Valdez from Solomon Gulch Hatchery releases.

Subsistence harvests of salmon in PWS, mostly sockeye salmon, are extremely small. Pink and coho salmon are the predominant species harvested in PWS sport fisheries. Although the harvest occurs primarily in marine waters, considerable sport fishing is also directed toward sockeye salmon in Coghill River and Eshamy Lagoon.

Five hatcheries are currently operating in PWS: the Solomon Gulch, Cannery Creek, Wally Noerenberg, Main Bay, and Armin F. Koernig Hatcheries (Figure 1). The Solomon Gulch, Wally Noerenberg, and Armin F. Koernig facilities are owned and operated by private, nonprofit organizations and primarily produce pink and chum salmon. The Cannery Creek facility, which primarily produces pink salmon, is owned by the state of Alaska and has been operated under contract by PWSAC since July of 1988. In 1990 PWSAC also assumed operation of the state-owned Main Bay Hatchery. The Main Bay Hatchery is raising full-term, age-1 (reared in the hatchery over winter) sockeye salmon smolts. This facility originally produced chum salmon. The last chum salmon smolt were released in 1987, and some adults from this release will continue to return through 1993.

Wild pink and chum salmon spawn in hundreds of small coastal streams on the mainland and islands throughout PWS. The largest sockeye salmon escapements occur in Coghill Lake and Eshamy Lake. Other sockeye spawning areas include Cowpen, Miners, Shrode and Jackpot Lakes; and Billy's Hole.

## METHODS

### *Enumeration of Catch*

Commercial salmon catches and fishing effort by fishing period and district or subdistrict were tabulated (Merritt et al. 1993) from fish tickets, i.e., sales receipts supplied by fishermen and processors. Processors often estimated the number of fish caught in landings by dividing landing weight by an estimated mean weight of that species. Because there is variation associated with estimates of mean weight, estimates of numbers caught may not be precise. The estimated mean weight and corresponding variance were not reported on fish tickets; therefore, the estimated numbers caught were assumed to represent the actual catch.

Subsistence and personal use catches recorded on returned fishery permits were summed to provide total estimates. The catch figures are preliminary and may differ slightly from final published figures, and are also low because all permits were not returned.

All sport fishery catches were estimated from postal surveys. Estimates were checked and validated with creel census data from selected fisheries (Mills 1994).

### *Enumeration of Hatchery Runs*

Hatchery fish were caught in commercial fisheries concurrently with wild fish. Estimated hatchery contributions of pink salmon to commercial common property and hatchery cost recovery harvests in 1993 were derived from coded wire tag recapture data (Geiger 1990). Brood stock fish were enumerated in annual summary reports for each facility and summarized by Donaldson et al. (1995).

### *Enumeration of Escapements*

Salmon stocks of the Copper/Bering River and PWS areas for which escapement data were available were grouped into runs according to major spawning areas. In the Copper/Bering River area, stocks were grouped into two runs: (1) the delta/Bering run, which includes all stocks of sockeye and coho salmon that spawn in coastal lakes and streams of the Copper River delta and Bering River watersheds; and (2) the upriver run, which includes all stocks of sockeye and chinook salmon that spawn in the Copper River watershed upstream of Miles Lake.

Estimates of sockeye and coho salmon escapements to coastal Copper River delta and Bering River tributaries were based on peak aerial survey counts of selected spawning areas. Aerial survey results represent indices of the relative abundance of escapements between stocks and years; however, they were used as estimates of total escapement in the absence of more precise data.

The upriver escapement of sockeye salmon in the Copper River was estimated using side-scanning sonar located at the outlet of Miles Lake (Figure 2). The escapement to Long Lake in the Chitina River drainage was counted through a weir on the lake outlet and was also included in the Miles Lake sonar count. The relative contributions of selected stocks to the total upper Copper River escapement were indexed by periodic aerial surveys.

For PWS, pink and chum salmon in 209 index streams were enumerated from weekly aerial surveys using methods similar to those described by Pirtle (1977). Survey counts were adjusted by dividing the area under the survey counts versus time curve by an estimated stream residence time to reduce bias from counting the same fish on successive surveys (Johnson and Barrett 1986). Recent studies (S. Sharr, ADF&G, Cordova, personal communication) indicate that the estimated stream residence time of 17.5 days (Helle et al. 1964) is probably too high for most PWS streams. Salmon escapements to Coghill and Eshamy Lakes were enumerated with weirs.

## *Sampling Procedures*

Catches and escapements were sampled to determine their age, sex, length, and weight. One scale was collected from each sampled sockeye and chum salmon, and three scales were collected from each sampled chinook and coho salmon. Pink salmon were not sampled for age data. Scales were taken from the left side two rows above the lateral line in an area transected by a diagonal line from the posterior base of the dorsal fin to the anterior base of the anal fin (INPFC 1963). Scales were mounted on gum cards and impressions were made in cellulose acetate (Clutter and Whitesel 1956). Scale growth patterns were examined to determine the age of each fish sampled. Whenever marine growth zones on scales were resorbed, marine age was determined using length frequency analysis (Tesch 1970). Length in millimeters was measured from the middle of the eye to the fork of the tail. Sex was determined by morphological characteristics, or when possible, by gonadal inspection.

### **Commercial Fishery Sampling**

Age and sex composition of the season catch for each combination of species, gear, and fishing district were estimated using stratified systematic sampling (Cochran 1977). Based on temporal distribution of past catches, contiguous fishing periods were combined to form sampling strata that would provide anticipated catches of similar magnitudes for all strata. The number of strata were based on temporal changes in age composition in previous years. Catches for which there were no valid historical estimates of age and sex composition were divided into three or four strata to expose moderate temporal changes. Whenever possible, sampling occurred on a single day near the temporal midpoint of each stratum. For the Copper River District, fish in each sample were randomly selected from processors without regard to tender vessel or subdistrict of capture because Sharr (1983) found no differences in age composition among 1982 tender loads from subdistricts within District 212.

Sample-size goals for each commercial catch stratum were 600 sockeye salmon from the Copper/Bering River area, and 610 sockeye salmon from PWS, 600 chinook salmon, 450 coho salmon, and 400 chum salmon from both the Copper/Bering River and PWS areas. These goals were originally selected so that sufficient numbers of ageable scales would be collected to simultaneously estimate the proportion of each major age class in the catch within  $\pm 5\%$  of the true proportion 90% of the time based on the normal approximation of a binomial proportion (Goodman 1965; Cochran 1977). However, Thompson's (1987) work on the "worst case" parameter value for the multinomial distribution suggests that these goals may actually result in simultaneously estimating the true percentage of each age group within  $\pm 5\%$  over 95% of the time.

Age composition and the associated variance were estimated by procedures outlined in Cochran (1977) for stratified sampling as follows:

$$C_{tj} = C_t P_{tj} ; \quad (1)$$

$$V[C_{tj}] = (C_t)^2 \frac{P_{tj}(1-P_{tj})}{N_t - 1} ; \quad (2)$$

$$C_j = \sum_{t=1}^T C_{tj} ; \quad (3)$$

$$V[C_j] = \sum_{t=1}^T V[C_{tj}] ; \quad (4)$$

where:

- $C_t$  = the number of fish caught during stratum  $t$ ,
- $P_{tj}$  = the fraction of the sample taken during stratum  $t$  that is age  $j$ ,
- $N_t$  = the sample size during stratum  $t$ ,
- $C_{tj}$  = the estimated number of fish of age  $j$  caught during stratum  $t$ ,
- $T$  = the number of strata, and
- $C_j$  = the estimate of the number of fish of age  $j$  caught during the season.

A correction factor for finite populations was not included in the variance calculations because sample sizes were generally small relative to catches.

### **Subsistence and Personal Use Fishery Sampling**

A stratified systematic sampling program was established for collecting sockeye salmon age, sex, and length samples from the upper Copper River subsistence and personal use fisheries. Sample stratification was based on commercial catch projections by fishing period and migratory timing

data for upriver stocks (Merritt and Roberson 1983), but some inseason modifications occurred because of logistical constraints. Fish wheel and dip net catches were sampled disproportionately during the season, but because gear differences and temporal differences could not be distinguished, catch samples from these gear types were pooled.

The same formulae used for estimating numbers of fish by age in commercial catches were used to estimate subsistence and personal use catches by age. Age, sex, and size composition of coho salmon from upriver fisheries were not estimated because of the small harvests.

### Copper/Bering River Escapement Sampling

Neither comprehensive enumeration studies nor detailed stratified sampling have been feasible for all coastal salmon streams of the Copper River delta and Bering River watersheds. Consequently, aerial surveys were used to estimate escapement to these areas. Simple systematic sampling described sex and age and the associated variance as follows:

$$E_j = A_m Q_j ; \quad (5)$$

$$V[E_j] = (A_m)^2 \frac{Q_j(1 - Q_j)}{N - 1} , \quad (6)$$

where:

- $E_j$  = the season escapement of fish of age  $j$ ,
- $A_m$  = the peak number counted on the spawning grounds during aerial surveys,
- $Q_j$  = the estimate of the portion of the escapement of age  $j$  pooled over one or two sampling trips to the spawning grounds, and
- $N$  = the number of fish sampled in all sampling trips to the spawning grounds.

Because total escapement abundance to these areas was not available, peak aerial spawning ground counts were multiplied by age proportions to approximate numbers of fish in each age class.

Sockeye salmon scale samples from the Copper River subsistence and personal use fisheries were believed to also represent the age, sex, and size composition of upriver escapements because (1) these fisheries occur downstream of most major spawning tributaries of the system, and (2) the

gear types used are believed to be relatively free from size selectivity. Age and sex composition estimates from the catch strata were applied directly to the sonar counts from Miles Lake. Temporal stratification of the sonar-estimated escapement was simplified to two strata, and the passage dates were lagged to account for fish travel time between Miles Lake and Chitina. Mean travel times in days were approximated from a linear regression of travel rate versus date calculated from mark-recapture data (Merritt and Roberson 1983).

### **Prince William Sound Escapement Sampling**

Stratified systematic sampling and weir counts were used to estimate the age, sex, and size composition of sockeye salmon escapements to Coghill and Eshamy Lakes. With the exception of the drift gillnet fishery in the Esther Subdistrict of the Coghill District and the drift and set gillnet fisheries in the Eshamy District, chum salmon harvested in PWS are taken primarily with purse seines. Because purse seines are believed to be relatively non-selective for size and age, commercial catch samples were assumed to represent age, sex, and size composition of escapements. Scale samples from chinook and chum salmon in the Wally Noerenberg Hatchery brood stock were collected by PWSAC and evaluated by ADF&G personnel. These samples provided an estimate of the age, sex, and size composition of chinook and chum salmon escapements in the Coghill District.

## **RESULTS AND DISCUSSION**

The total run of all species of salmon to the Copper/Bering River area and PWS in 1993 was estimated to be 11,742,750 fish (Table 1). The commercial common property fisheries harvest of pink salmon in PWS composed 29.9% (3,513,395 fish) of the total run. The next largest commercial harvest components were sockeye salmon in the Copper/Bering River area (12.2% or 1,432,185 fish), and chum salmon in PWS (5.9% or 693,058 fish). Commercial catches exceeded all other harvest types for all species and areas (Table 1). The subsistence/personal use harvest of sockeye salmon from the upper Copper River, 138,799 fish, exceed harvests in other areas by this user group, yet composed only 8.8% of the total catch of sockeye salmon in the Copper/Bering River area. The sport harvest of pink salmon in PWS totaled 35,520 fish. This harvest was 59.5% of the sport harvest of all species from the PWS and Copper/Bering River areas but only 0.5% of the total PWS pink salmon return.

Purse seine catches of 3,238,236 pink salmon in PWS commercial common property fisheries predominated the harvests of this species (Table 2). The largest catches of chum salmon, 663,231 fish, were harvested by PWS drift gillnet fishermen. Drift gillnet fishermen in the Copper/Bering River area had the largest commercial harvests of sockeye (1,432,185 fish), chinook (29,857 fish), and coho salmon (397,302 fish).



The personal use dip net catch of 89,269 sockeye salmon combined with the subsistence fish wheel and dip net catch of 48,742 sockeye salmon from the upper Copper River accounted for 98.7% of the subsistence/personal use harvest of this species and 94.1% of the subsistence/personal use harvest of all species from all areas (Table 3). Pink salmon caught in marine waters near Valdez by sport fishermen totaled 32,479 fish and composed 90.9% of the pink salmon sport harvest from all areas (Table 4). Coho salmon sport catches totaled 21,946 fish, of which 12,745 were taken in the vicinity of Valdez.

Adjusted aerial survey counts of PWS pink salmon escapements totaled 1,065,640 fish in 1993, and the largest portions were observed in the Eastern (314,727 fish), Southeastern (315,093 fish), and Montague (144,784 fish) Districts (Table 5). Adjusted chum salmon counts of 49,904 fish in the Eastern District and 19,265 fish in the Northern District accounted for 60.3% of the total escapement of chum salmon in PWS. Sonar counts obtained from the Miles Lake facility totaled 833,387 fish; although species composition is not estimated for the sonar counts, the counts are assumed to be entirely sockeye salmon because they are highly dominant numerically. No aerial surveys of sockeye systems in the Upper Copper River were conducted in 1993. Although aerial survey counts of upper Copper River coho, pink, and chum salmon were not reported, aerial observations indicated escapements for these species were small.

Appendices A and B present age and sex composition by species for all sampled strata of the Copper/Bering River area commercial, subsistence, personal use, and sport catches, as well as daily catches for upriver subsistence and personal use catches. Aerial survey counts, daily Miles Lake sonar and Long Lake weir counts, as well as age and sex composition of escapements by location, are presented in Appendices C and D. Appendix E contains age and sex composition of PWS commercial harvests for each sampled district and time stratum. Aerial escapement estimates, daily weir counts, and age and sex composition of PWS escapements are presented in Appendix F. Daily counts of hatchery brood stock runs and their age and sex composition are in Appendix G. Mean length by age and sex for all fish sampled can be found in Appendix H, and the average weights of commercially caught fish are in Appendix I.

### *Copper/Bering Rivers*

The commercial, subsistence, personal use, and sport fisheries in the Copper River District (212) and the Bering River District (200) share geographic proximity, occur simultaneously, and are all directed at stocks of sockeye, coho, and chinook salmon returning to the Copper/Bering River area.

#### **Chinook Salmon**

*Catch.* Most of the 29,727 chinook salmon caught in the Copper River District in 1993 were harvested between 15 May and 12 June (Table 6). Percentage age composition of the commercial

common property catch was 63.3% age 1.3, 25.0% age 1.4, and 11.7% other age groups (Table 7). Fish aged 1.3 and 1.4 were the most numerous in the catch throughout the season (Appendix A.1).

A total of 4,157 chinook salmon were caught in the upper Copper River subsistence and personal use fisheries (Table 3). Most chinook salmon, 68.1% were captured with dip nets, and the remainder were taken with fish wheels. Percentage age composition of the catch was 50.9% age 1.3, 28.1% age 1.3, and 10.5% age 1.2..

Mills (1994) estimated a sport harvest of 8,217 chinook salmon from the upper Copper River drainage (Table 4). Virtually all of these fish (95.2%) were harvested in the Gulkana and Klutina River drainages.

**Escapement.** Peak aerial survey counts of chinook salmon from the upper Copper River area totaled 1,347 fish compared to the 1983-92 average index of 2,957; however, only three of the nine index systems were surveyed (Donaldson et al. 1995).

### **Sockeye Salmon**

**Catch.** In the Copper River District, 1,398,234 sockeye salmon were commercially harvested in 1993 (Table 8). Sockeye catches peaked during the second fishery opening on 23 and 24 May at 124,368 fish and again during the seventh period on 6-8 June at 110,515 fish. Catches dropped sharply after the 21-23 June opening and then averaged about 46,500 fish until after 28 July.

Age composition of the commercial common property catch for all strata sampled was 65.1% age 1.3, 14.5% age 1.2, 11.1% age 0.3, and 7.6% age 2.3 (Table 9). The percentage of age-1.3 fish increased from 54.6% in mid-May to 73.6% in late July (Appendix A.2). Fish aged 1.2 increased from 1.0% on 18 May to a high of 29.1% in the first week of July.

The Bering River District sockeye fishery opened on 17 June, 1 month later than the Copper River District (Table 8). Total sockeye salmon harvest for the district was 33,951 fish. No age or sex data were collected for Bering River District sockeye commercial catches in 1993.

The subsistence and personal use fisheries in the Upper Copper River District began on 1 June. A total of 138,371 sockeye salmon were harvested (Appendix B.1); peak daily catches occurred on weekends in June and mid-August (Figure 4). Of the total catch, 35% were taken with fish wheels and 65% with dip nets. Fish aged 0.3 (8.2%), 1.2 (9.1%) and 2.3 (6.1%) were lower in relative abundance than in the Copper River commercial catch (Table 9), whereas age-1.3 fish (74.0%) composed a larger portion than in the commercial catch. The contribution of age-1.3 fish increased from 53.0% in early June to 90.4% in mid-August (Appendix B.3). The percentage of age-0.3 fish decreased from 19.1% in early June to only 0.4% by mid-August.

Of the 5,336 sockeye salmon harvested by sport fishermen in the upper Copper River area, 80.8% were caught in the Gulkana and Klutina River drainages (Table 4). The three coastal Copper River area streams listed by Mills (1994) (Eyak River, Alaganik Slough, and Clear Creek) had

a combined sport harvest of 1,243 sockeye salmon (Table 4). The sport harvest from other coastal Copper River area streams was included in catches reported for PWS (Mills 1994).

**Escapement.** Aerial surveys indicated 57,720 sockeye salmon escaped into spawning areas of the Copper River delta and 27,725 sockeye salmon escaped into the Bering River drainage (Table 5). These data are not estimates of actual escapements but indices of the relative spawning escapements to those areas. Peak aerial survey counts were observed in late July for the Copper River delta and Bering River drainage (Appendix C.1). The most abundant age groups in escapements to the upper Copper River were fish aged 1.3 at 72.6%, 1.2 at 14.0%, and 0.3 at 9.2% (Table 10). Age 1.3 at 55.0% was the most abundant age group overall in Copper River delta escapements, and age 1.2 at 27.9% was the next most abundant (Appendix C.3). The Copper River delta sockeye salmon escapements had large temporal and spatial differences in age composition with river systems having much higher proportions of zero-check freshwater fish than lake systems (Appendix C.4). Fish aged 1.3 at 62.4% and 1.2 at 23.1% composed most of the Bering River escapements (Table 10; Appendix C.5).

An estimated 833,387 salmon passed the Miles Lake sonar site in 1993 (Table 5). Included in this count were 1,347 chinook salmon observed in upper Copper River aerial surveys (Donaldson et al. 1995) and 16,101 sockeye salmon counted through a weir at Long Lake (Appendix D.2). Escapement at the sonar site was monitored from late May to early August (Figure 5). Daily counts of 8-38,000 fish occurred from 21 May through 16 June, and a peak count of 38,581 occurred on 25 May (Appendix D.1). Estimated age composition of the escapement passed Miles Lake (Appendix D.3) was based on samples collected from upriver subsistence and personal use fisheries.

## **Coho Salmon**

**Catch.** Substantial catches of coho salmon in the Copper River District began in late August and continued through late September (Table 11). Of the 281,469 coho salmon caught in the Copper River District, 67.0% were age 2.1 and 29.7% were age 1.1 (Table 12).

The 1993 commercial catch of coho salmon in the Bering River District was 115,833 (Table 11). At 76.1%, age-2.1 fish composed a larger portion of the Bering River catch than of the Copper River commercial catch (Appendix A.4).

Donaldson et al. (1995) estimated a subsistence and personal use catch of 1,457 coho salmon in the Copper/Bering River area (Table 3). Sport fishermen harvested 2,431 coho salmon from Eyak River, 1,127 from Alaganik Slough, and an unknown number from a few other easily accessible coastal streams on the Copper River delta (Table 4). No age or sex composition data were collected for these fisheries.

**Escapement.** No aerial escapement estimates were made for coho salmon in the upper Copper River drainage in 1993, but aerial survey counts of coho salmon escapements to the upper Copper River are normally quite low. Aerial surveys indicated 45,740 coho salmon escaped to spawning

areas in the Copper River delta and 29,450 to the Bering River drainage (Appendix C.2; Table 5); these data are not estimates of the actual escapements but indices of the relative spawning escapements to those areas. No age or sex composition data were collected for these fish.

### *Prince William Sound*

Fisheries in the nine fishing districts in PWS (Districts 221-229) share geographic proximity, occur simultaneously, and are directed at salmon stocks of PWS origin.

#### **Chinook Salmon**

Commercial harvests of chinook salmon in PWS are incidental to fisheries directed towards other species (Table 13).

A total of 573 chinook salmon escaped into the brood pond at Wally Noerenberg Hatchery in 1993 (Appendix G.1). The age composition of the brood stock samples was 96.6% age 1.3 and 2.5% age 1.2, and 0.8% age 1.1 (Appendix G.6).

#### **Sockeye Salmon**

**Catch.** A total of 580,978 sockeye salmon were commercially harvested in PWS in 1993 (Table 2). The majority of the commercial common property catch came from the Eshamy District drift gillnet (80,807 fish) and set gillnet (101,717 fish) fisheries targeting the Main Bay Hatchery run. Catches in the Coghill District (66,532 fish) and the Unakwik District (14,691 fish) made up the remainder of the drift gillnet harvest. Most of the PWS common property purse seine catch of 34,575 sockeye salmon were caught in the Southwestern District (28,092 fish).

Sockeye catches in the Eshamy District were largest in early July and mid to late August, and the largest weekly catch (36,368 fish) occurred in mid-August (Table 14). Age-1.2 fish composed 71.9% of the Eshamy District catch (Table 15). Age-1.2 fish increased from 10.0% of the catch in mid-June to 85.9% in mid-August. (Appendix E.2).

The largest sockeye catches in the Coghill District occurred from late June and early July (Table 14). The combined gear catch totaled 72,782 fish (Table 14). The most abundant age classes in the catch were age 1.2 at 57.5 % and age 1.3 at 31.8% (Table 15).

Unakwik District sockeye salmon catches peaked in late June and early July, and the largest weekly catch (4,175 fish) occurred in late June (Table 14). No age or sex composition were collected for this fishery in 1993.

The largest weekly purse seine catch of sockeye salmon in PWS, 11,798 fish, occurred in mid-August (Table 14) and accounted for 34.1% of the purse seine harvest. Most of the sockeye salmon purse seine harvest (81.2%) occurred in the Southwestern District. The most abundant Southwestern District age classes were age 1.2 at 81.7%, age 1.3 at 7.2%, and age 1.1 at 5.4% (Appendix E.3; Table 15).

Hatchery cost recovery harvests of sockeye salmon in PWS totaled 113,738 fish (Table 2). The majority, 96.6%, of the harvest was at Main Bay Hatchery. Age-1.2 at 72.7% was the most abundant and age-1.3 at 20.6% was next most abundant (Appendix G.10).

The reported subsistence harvest of sockeye salmon in PWS was 1,451 fish (Table 3). Age and sex composition data were not collected. A sport fishery harvest of 4,026 sockeye salmon was estimated for the PWS area (Table 4). Because Sport Fish Division summarizes and reports sport harvests by area differently than the Division of Commercial Fisheries, this estimate may include fish harvested from drainages included in Copper River delta/Bering River area.

**Escapement.** A total of 9,232 sockeye salmon were counted through the Coghill River weir in 1993 (Appendix F.1). Approximately 72.6% of the escapement passed the weir from 10 July through 31 July, and the peak daily count of 883 fish occurred on 11 July. The age composition was estimated at 83.8% age 1.3, 5.2% age 1.2, and 4.8% age 2.3 (Table 16). The contribution of age-1.3 fish decreased from >84% for the first three samples to 57.8% in the last sample (Appendix F.6). Age 1.2 in the escapement increased from < 2.0% in June and July to 27.3% in early August.

Escapement through Eshamy weir of 42,893 sockeye salmon (Appendix F.2) occurred later than the Coghill weir escapement (Figure 6). Approximately 77% of the escapement passed the weir between 14 and 21 August, and the peak count of 4,898 fish occurred on 17 August. Age composition of the escapement was 63.0% age 1.2, 24.8% age 2.2, and 10.6% age 1.3 (Table 16). The percentage of age-1.2 fish increased from 41.6% in late July to 81.5% in late August (Appendix F.7). The percentage of age-1.3 fish decreased from 31.6% in late July to 1.8% in late August.

A total of 2,320 sockeye salmon were used for brood stock at the Main Bay Hatchery (Appendix G.2). The brood stock was composed of 67.9% age-1.2 fish and 32.1% age-1.3 fish (Appendix G.7).

## **Coho Salmon**

In 1993, 5,437 coho salmon were harvested by commercial common property purse seine and 39,407 coho salmon by commercial common property gillnet fisheries in PWS (Table 2). Nearly all (96.2%) of the coho salmon taken with gillnets in PWS were caught in the Coghill District. Most of these fish probably originated from the Wally Noerenberg Hatchery (C. Peckham, ADF&G, Cordova, personal communication). Coho catches peaked in the first week of September (Table 17).

The subsistence catch of coho salmon in PWS was 365 fish (Table 3). In recent years the sport fishery in PWS has been increasingly directed to coho salmon. Mills (1994) estimated that 17,059 coho salmon were caught by sport fishermen in PWS and the drainages of the Copper River delta and Bering River in 1993 (Table 4).

A total of 687 coho salmon were used for brood stock at the Solomon Gulch Hatchery (Appendix G.3). At Wally Noerenberg Hatchery, 1,282 coho salmon were used for brood stock. No age or sex data were collected from the Solomon Gulch or Wally Noerenberg Hatchery brood stocks.

## **Pink Salmon**

The total commercial harvest of pink salmon in PWS for 1993 was 5,750,936 fish (Table 2). The commercial common property purse seine harvest of 3,238,236 fish was 56.3% of the PWS total harvest of pink salmon. Commercial common property purse seine fishermen harvested 76.5% of their catch in the Southwestern District, 12.6% in the Northern District, and 10.9% in the Coghill District (Table 2). Peak purse seine catches occurred in mid to late August in the Northern, Coghill, Southwestern, and Unakwik Districts (Table 18).

The commercial common property purse seine and gillnet fisheries harvested 61.1% of the PWS total catch of pink salmon, and 38.5% were taken in hatchery cost recovery fisheries. Preliminary estimates from coded wire tag recoveries indicate that approximately 2,398,918 hatchery pink salmon were harvested in the commercial common property and 1,548,670 in hatchery cost recovery fisheries (Table 19). The total harvest of hatchery-produced pink salmon in PWS was estimated at 3,947,588 fish or 68.6% of the total pink salmon harvest in PWS.

An estimated 35,692 pink salmon were caught by PWS sport fishermen, and 91.4% were taken in the marine waters near Valdez (Table 4).

Estimated escapements of wild pink salmon in PWS during 1993 (Appendix F.3) were >25% below 1965-1991 mean levels for odd years in four of eight districts (Donaldson et al. 1995). Escapement peaked for most districts in late August; however, the Eastern and Northern Districts peaked in early August (Appendix F.4).

A total of 1,174,985 pink salmon were killed at the brood ponds of the Solomon Gulch, Cannery Creek, Wally Noerenberg, and Armin F. Koernig Hatcheries in 1993 (Appendix G.4). Out of the total killed, 654,048 or 55.8% were used for brood stock.

### **Chum Salmon**

Of the 1,173,341 chum salmon in the PWS total commercial harvest, 663,231 fish or 56.5% were harvested in commercial common property drift gillnet fisheries, 9,458 fish or 0.8% in commercial common property purse seine fisheries, and 20,369 fish or 1.7% in the commercial common property set gillnet fishery (Table 2). Most of the gillnet catch occurred in the Coghill (92.9%) and Eshamy (6.9%) Districts where fishermen were targeting fish runs to the Wally Noerenberg and Main Bay hatcheries. The commercial common property purse seine catch was split approximately evenly among the Eastern, Northern, and Southwestern Districts (Table 21).

Peak catches in the Northern and Southwestern Districts occurred in mid to late August (Table 20). Drift gillnet catches in the Coghill District peaked in late June and early July, whereas purse seine harvests peaked in early August. Gillnet catches in the Eshamy District peaked in late June and early July (Table 20).

The commercial common property purse seine catch of Southwestern District chum salmon was composed of 79.3% age 0.3 and 17.2% age 0.4 (Table 21). For the Eshamy District gillnet catch samples, 76.8% were age 0.3 and age 0.4 composed most, 22.8%, of the remainder. In the Coghill District the percentage of age-0.3 fish increased from 13.0% in early June to 83.8% in mid-July (Appendix E.4).

Hatchery cost recovery sales in 1993 accounted for 475,148 chum salmon or 40.5% of the PWS total commercial harvest of this species (Table 2). Wally Noerenberg Hatchery accounted for 97.6% of the PWS chum salmon hatchery cost recovery harvest.

No estimates of hatchery contributions to the commercial common property fisheries were completed because not all release years in the run were tagged. Estimates from PWSAC and VFDA indicate that approximately 596,564 chum salmon were harvested for cost recovery or brood stock (Table 22).

The subsistence harvest of chums was <800 fish (Table 3). The estimated total PWS sport fishery harvest of chum salmon was 2,009 fish, 43.5% of which were caught in the marine waters near Valdez (Table 4).

A total of 103,350 chum salmon were taken for brood stock at Wally Noerenberg Hatchery in 1993 (Appendix G.5). The Wally Noerenberg Hatchery brood stock was composed of 98.9% age-0.4 fish (Appendix G.8).

Wild chum salmon escapements to surveyed PWS streams were estimated at 114,718 fish in 1993 (Appendix F.5). The escapements were below the 1965-1992 mean index in all eight districts and >40% below the mean in six of eight districts (Donaldson et al. 1995).



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Table 1. Salmon harvest and indexed escapement by species and fishery element from the Copper/Bering River and Prince William Sound, 1993.

Area and Fishery Element	Catch by Species (No. of Fish)				
	Chinook	Sockeye	Coho	Pink	Chum
<b>Upper Copper River and Copper/Bering River Area</b>					
Total Commercial Catch	29,857	1,432,185	397,302	9,661	13,024
Subsistence/Personal Use Catch	4,157	138,799	1,457	<sup>b</sup>	<sup>b</sup>
Sport Harvest <sup>a</sup>	8,273	6,839	4,858	215	0
Indexed Escapement		918,832	75,190	<sup>c</sup>	<sup>c</sup>
<b>Upper Copper River and Copper/Bering River Total</b>	<b>42,287</b>	<b>2,496,655</b>	<b>478,807</b>	<b>9,876</b>	<b>13,024</b>
<b>Prince William Sound Area</b>					
Total Commercial Catch	2,148	418,948	48,310	5,750,936	1,173,341
Subsistence Catch	5	1,451	365	376	198
Sport Harvest <sup>a</sup>	1,288	3,766	17,088	35,520	2,018
Indexed Escapement	<sup>d</sup>	65,985	<sup>d</sup>	1,065,640	114,718
<b>Prince William Sound Total</b>	<b>3,441</b>	<b>490,150</b>	<b>65,763</b>	<b>6,852,472</b>	<b>1,290,275</b>
<b>Total All Areas</b>	<b>45,728</b>	<b>2,986,805</b>	<b>544,570</b>	<b>6,862,348</b>	<b>1,303,299</b>

<sup>a</sup> Some minor sport harvests of anadromous salmon are not reported by specific locations. Consequently, upper Copper River estimates may include a small number of fish from Susitna River tributaries, and the Prince William Sound estimates may include a small number of fish from Copper River delta/Bering River coastal streams.

<sup>b</sup> A total of 139 fish of other species including steelhead and others, were reported caught but species composition was not estimated.

<sup>c</sup> Pink and chum salmon escapements to the upper Copper River and Copper/Bering River area are not indexed.

<sup>d</sup> Chinook and coho salmon escapements to Prince William Sound are not indexed.

Table 2. Commercial salmon harvest by species, gear type, and district for the Copper/Bering River and Prince William Sound areas, 1993.

Area/Gear	District or Hatchery Name	Statistical Area	Catch by Species (No. of Fish)				
			Chinook	Sockeye	Coho	Pink	Chum
Copper/Bering River Area							
Drift Gillnet	Copper River	212	29,727	1,398,234	281,469	9,579	13,002
	Bering River	200	130	33,951	115,833	82	22
Copper/Bering River Total			29,857	1,432,185	397,302	9,661	13,024
Prince William Sound Area							
Drift Gillnet	Coghill	223	576	66,532	37,898	141,279	635,208
	Eshamy	225	8	80,807	673	45,974	27,045
	Unakwik	229	5	14,691	4	3,338	978
	Total		589	162,030	38,575	190,591	663,231
Set Gillnet	Eshamy	225	55	101,717	832	84,568	20,369
	Total		55	101,717	832	84,568	20,369
Purse Seine	Northern	222	1	154	18	406,737	2,154
	Coghill	223	46	6,250	1,760	352,468	3,645
	Southwestern	226	11	28,092	3,659	2,475,798	3,592
	Unakwik	229	0	79	0	3,233	67
	Total		58	34,575	5,437	3,238,236	9,458
Hatchery Cost Recovery Harvest <sup>a</sup>	Solomon Gulch	221-61	5	73	1,727	1,326,463	9,101
	Cannery Creek	222-21	0	37	0	172,824	688
	Wally Noerenberg	223-41	1,432	2,011	1,532	276,642	463,591
	Main Bay	225-21	0	109,921	0	79,416	1,763
	Armin F. Koernig	226-62	0	1,696	0	357,058	5
Total		1,437	113,738	3,259	2,212,403	475,148	
Confiscated Test Fish	All Districts Combined		1	93	35	0	114
	Eshamy/Coghill		8	6,795	172	25,138	5,021
	Total		9	6,888	207	25,138	5,135
Prince William Sound Total			2,148	418,948	48,310	5,750,936	1,173,341
Total All Areas and Gear Types			32,005	1,851,133	445,612	5,760,597	1,186,365

<sup>a</sup> Harvest is from purse seines.

Table 3. Subsistence and personal-use harvest by species, fishery, and gear type for the Copper/Bering River and Prince William Sound areas, 1993.

Area/Fishery	Gear	Location	Catch by Species (No. of Fish)			
			Chinook	Sockeye	Coho	Other <sup>a</sup>
Copper/Bering River Area						
Personal Use	Dip Net	Upper Copper River	2,729	89,629	1,358	31
	Total		2,729	89,629	1,358	31
Subsistence	Dip net	Upper Copper River	18	214	20	0
	Fish wheel	Upper Copper River	1,290	48,368	50	84
	Dip net/fish wheel/spear	Batzulnetas	0	160	0	0
	Drift gillnet	Copper/Bering River	120	428	29	24
	Total		1,428	49,170	99	108
Copper/Bering River Total			4,157	138,799	1,457	139
Prince William Sound						
Subsistence	Drift gillnet	Prince William Sound General	1	81	3	0
	Set gillnet		0	23	7	0
	Mixed gear <sup>b</sup>	Eastern (Tatitlek)	2	512	305	398
		Southwestern (Chenega)	2	835	50	356
Prince William Sound Total			5	1,451	365	754
Total All Areas			4,162	140,250	1,822	893

<sup>a</sup> Includes steelhead, char, whitefish, other salmon, and miscellaneous species.

<sup>b</sup> Special subsistence harvest initiated in 1989.

Table 4. Sport fishery harvest and effort by location and species in the upper Copper River and in the combined Copper River delta, Bering River, and Prince William Sound areas, 1993.

Area	Location/Fishery	Anglers	Trips	Days Fished	Sport Fish Harvest by Species				
					Chinook	Sockeye	Coho	Pink	Chum
Upper Copper River <sup>a</sup>	Gulkana River								
	Float - Paxson to Sourdough	2,533	2,554	6,135	694	698	0	0	0
	Float - Sourdough to Highway	4,132	4,475	6,590	1,866	547	0	0	0
	Other	8,051	10,291	14,309	3,304	1,714	0	0	0
	Klutina River	4,796	5,388	7,714	1,955	1,350	83	0	0
	Tonsina River	1,109	1,501	2,158	172	188	38	0	0
	Other Streams	3,198	4,139	6,478	226	689	128	0	0
	Tolsona Lake	417	304	490	0	0	0	0	0
	Van (Silver) Lake	1,884	1,525	2,743	0	48	0	0	0
	Paxson Lake	2,698	2,189	4,336	0	48	0	0	0
	Summit Lake (near Paxson)	1,317	1,226	1,792	0	9	0	0	0
	Other Lakes	3,559	4,615	7,076	0	45	0	0	0
Area Total		33,694 <sup>b</sup>	38,207	59,821	8,217	5,336	249	0	0
Copper River delta, Bering River, and Prince William Sound	Freshwater:								
	Eyak River	1,004	2,613	3,080	0	193	2,431	43	0
	Eshamy Lake, Creek, and Lagoon	361	512	653	0	432	29	0	9
	Alaganik Slough	766	1,311	1,613	0	419	1,127	0	0
	Clear Creek	707	988	1,355	0	631	332	17	0
	Other Streams	1,328	2,077	2,641	56	241	671	155	0
	Other Lakes	944	954	1,285	0	19	48	0	0
	Subtotal	5,110	8,455	10,627	56	1,935	4,638	215	9
	Saltwater:								
	Valdez Bay-								
	Boat	16,160	21,704	35,417	396	702	11,028	13,417	553
	Shoreline/Road System	5,589	8,465	12,971	0	472	1,285	12,966	204
	Shoreline/Remainder	2,232	3,018	4,158	9	61	432	6,096	116
	Passage Canal (Whittier)-								
	Boat	2,227	3,767	7,932	130	125	427	229	65
	Hinchinbrook Island-Boat	6,049	8,742	14,395	170	1,512	1,484	1,218	326
	Orca Inlet-								
	Boat	1,886	3,623	5,181	152	39	447	363	133
	Shoreline	849	1,747	1,898	63	10	227	10	37
	Esther Island								
	Boat	1,588	2,252	4,427	126	221	644	420	442
	Montague Island								
	Boat	685	1,110	1,357	28	0	458	0	0
	Other-								
	Shoreline	1,356	2,164	4,053	214	192	627	801	133
Subtotal		38,621 <sup>b</sup>	56,592	91,789	1,288	3,334	17,059	35,520	2,009
Area Total		43,731 <sup>b</sup>	65,047	102,416	1,344	5,269	21,697	35,735	2,018
Total All Areas		77,425 <sup>b</sup>	103,254	162,237	9,561	10,605	21,946	35,735	2,018

<sup>a</sup> Includes drainages of the Copper River upstream from a line between the south bank of Haley Creek and the south bank of Canyon Creek in Wood Canyon, and the upper Susitna River drainage below its confluence with the Oshetna River. Does not include the Oshetna River.

<sup>b</sup> Maximum estimate. Includes some fishermen who may have fished in more than one location.

Table 5. Salmon escapement and escapement indices by species and district in the Copper/Bering River and Prince William Sound areas, 1993.

Area and District	Statistical Area	Escapement by Species				
		Chinook	Sockeye	Coho	Pink	Chum
Copper/Bering River Area <sup>a</sup>						
Copper River – Copper River delta Upper Copper River	212		57,720 833,387 <sup>b</sup>	45,740		
Bering River	200		27,725	29,450		
Area Total			918,832	75,190		
Prince William Sound Area <sup>c</sup>						
Eastern	221				314,727	49,904
Northern	222		2,600 <sup>d</sup>		95,491	19,265
Coghill	223		9,262 <sup>e</sup>		41,666	7,404
Northwestern	224		1,520		45,847	17,692
Eshamy	225		42,893 <sup>f</sup>		9,348	0
Southwestern	226		5,000		98,573	1,250
Montague	227		10 <sup>d</sup>		144,784	30
Southeastern	228				315,093	19,173
Unakwik	229		4,700		111	0
Area Total			65,985		1,065,640	114,718

<sup>a</sup> Based on periodic aerial surveys of salmon streams and includes counts from all systems surveyed, not just the historical index streams (Appendices C.1–2, F.3–5). Does not account for escapement into unsurveyed systems. Escapements of salmon species not noted are small and not indexed.

<sup>b</sup> Miles Lake sonar count (Appendix D.1). Species composition was not estimated; however, sockeye salmon are by far the most abundant species. Aerial surveys indicated coho, pink, and chum salmon escapements to the upper Copper River were small.

<sup>c</sup> Escapement indices for pink and chum salmon in Prince William Sound are based on aerial counts of regularly surveyed streams adjusted for stream life and do not account for escapement into unsurveyed streams. Escapements of other salmon species are generally insignificant and not recorded except as noted.

<sup>d</sup> Based on peak observed aerial count of selected systems during regularly scheduled surveys.

<sup>e</sup> Based on weir counts plus peak observed aerial counts of other district streams in scheduled surveys.

<sup>f</sup> Weir count.



Table 6. Copper/Bering River chinook salmon catch and effort by the commercial common property fishery, by district and fishing period from fish ticket summaries, 1993.

Statistical Week	Period Dates	Copper River			Bering River		
		Hours	Effort <sup>a</sup>	Catch	Hours	Effort <sup>a</sup>	Catch
21	05/17-05/18	24	461	6,375		Closed	
22	05/23-05/24	36	488	7,998		Closed	
22	05/26-05/27	36	481	3,688		Closed	
22	05/29-05/29	12	451	1,103		Closed	
23	05/31-06/01	24	481	2,830		Closed	
23	06/03-06/04	48	491	2,124		Closed	
24	06/06-06/08	48	301	2,187	24	19	33
24	06/10-06/12	48	327	1,312	24	5	3
25	06/14-06/16	48	316	857	24	11	21
25	06/17-06/19	60	274	527	36	73	54
26	06/21-06/23	60	277	435	36	21	5
26	06/24-06/26	36	194	99	36	8	7
27	06/28-06/30	48	158	74	48	6	4
27	07/01-07/03	36	157	26	36	6	2
28	07/05-07/07	48	176	21	48	4	0
28	07/08-07/10	36	245	6	36	1	0
29	07/12-07/13	36	260	13	36	2	0
29	07/15-07/17	36	272	13	36	1	0
30	07/19-07/21	48	268	10	48	1	0
30	07/22-07/24	36	239	9	36	1	0
31	07/26-07/28	48	165	4	48	1	0
31	07/29-07/31	36	132	2	36	1	0
32	08/02-08/04	48	82	1	48	0	0
32	08/05-08/07	36	74	0	36	1	0
33	08/09-08/10	24	109	0	24	0	0
34	08/16-08/17	24	181	5	24	1	0
34	08/19-08/20	24	79	0	24	0	0
35	08/26-08/28	48	290	7	48	31	1
36	09/02-09/04	48	285	1	48	54	0
37	09/09-09/10	24	225	0	24	68	0
38	09/13-09/15	48	235	0	48	83	0
38	09/16-09/17	24	85	0	24	50	0
39	09/20-09/22	48	150	0	48	63	0
39	09/23-09/25	48	142	0	48	38	0
40	09/27-09/29	48	92	0	48	32	0
40	09/30-10/02	48	29	0	48	27	0
41	10/04-10/06	48	37	0	48	5	0
41	10/07-10/09	48	2	0	48	0	0
Total		1,524	508	29,727	1,224	153	130

<sup>a</sup> Number of permits reporting catches.

Table 7. Estimated age composition of Copper River area chinook salmon in commercial common property drift gillnet catches and subsistence and personal-use catches, 1993.

Fishery Element	Area	Sample Size	Total Catch	Percentage of Catch by Brood Year and Age Group											
				1990		1989		1988			1987			1986	
				0.2	1.1	0.3	1.2	0.4	1.3	2.2	0.5	1.4	2.3	1.5	2.4
Commercial Common Property Catch	Copper River District	2,043	29,727	0.4	0.2	0.0	6.6	0.1	63.3	0.2	0.0	25.0	1.8	1.3	1.1
Subsistence/ Personal Use	Upper Copper River	57	4,037	0.0	0.0	0.0	10.5	0.0	50.9	0.0	0.0	28.1	5.3	0.0	5.3

Table 8. Copper/Bering River area sockeye salmon catch and effort by commercial common property fishery, by district and fishing period, from fish ticket summaries, 1993.

Statistical Week	Period Dates	Copper River			Bering River		
		Hours	Effort <sup>a</sup>	Catch	Hours	Effort <sup>a</sup>	Catch
21	05/17-05/18	24	461	43,058		Closed	
22	05/23-05/24	36	488	124,368		Closed	
22	05/26-05/27	36	481	91,714		Closed	
22	05/29-05/29	12	451	44,988		Closed	
23	05/31-06/01	24	481	93,367		Closed	
23	06/03-06/04	48	491	99,355		Closed	
24	06/06-06/08	48	301	110,515	24	19	3,726
24	06/10-06/12	48	327	94,659	24	5	618
25	06/14-06/16	48	316	67,420	24	11	2,524
25	06/17-06/19	60	274	62,847	36	73	15,559
26	06/21-06/23	60	277	66,440	36	21	2,021
26	06/24-06/26	36	194	39,412	36	8	1,596
27	06/28-06/30	48	158	48,316	48	6	3,017
27	07/01-07/03	36	157	42,200	36	6	1,708
28	07/05-07/07	48	176	65,851	48	4	1,066
28	07/08-07/10	36	245	49,641	36	1	250
29	07/12-07/13	36	260	69,283	36	2	743
29	07/15-07/17	36	272	49,060	36	1	262
30	07/19-07/21	48	268	50,255	48	1	242
30	07/22-07/24	36	239	28,021	36	1	200
31	07/26-07/28	48	165	23,873	48	1	172
31	07/29-07/31	36	132	8,391	36	1	18
32	08/02-08/04	48	82	8,969	48	0	0
32	08/05-08/07	36	74	6,193	36	1	53
33	08/09-08/10	24	109	6,335	24	0	0
34	08/16-08/17	24	181	1,415	24	1	9
34	08/19-08/20	24	79	302	24	0	0
35	08/26-08/28	48	290	1,427	48	31	135
36	09/02-09/04	48	285	484	48	54	19
37	09/09-09/10	24	225	45	24	68	4
38	09/13-09/15	48	235	27	48	83	9
38	09/16-09/17	24	85	0	24	50	0
39	09/20-09/22	48	150	1	48	63	0
39	09/23-09/25	48	142	2	48	38	0
40	09/27-09/29	48	92	0	48	32	0
40	09/30-10/02	48	29	0	48	27	0
41	10/04-10/06	48	37	0	48	5	0
41	10/07-10/09	48	2	0	48	0	0
Total		1,524	508	1,398,234	1,224	153	33,951

<sup>a</sup> Number of permits reporting catches.

Table 9. Estimated age composition of Copper River sockeye salmon in commercial common property drift gillnet catches and upper Copper River subsistence and personal – use fish wheel and dip net catches, 1993.

Fishery Element	Area	Sample Size	Total Catch	Percentage of Catch by Brood Year and Age Group					
				1990	1989	1988	1987	1986	
Commercial Common Property Catch	Copper River District	4,940	1,398,234	0.2	1.1	0.4	1.3	2.2	1.4
				0.2	0.0	11.1	14.5	0.1	65.1
Subsistence/ Personal Use	Upper Copper River	2,559	138,211	0.7	0.1	8.2	9.1	0.1	74.0
				0.7	0.1	8.2	9.1	0.1	74.0
							0.3	6.1	0.0
							0.3	6.1	0.0

Table 10. Estimated age composition of sockeye salmon in escapements to the Copper and Bering River systems, 1993.

				Percentage of Escapement by Brood Year and Age Group														
				1991			1990			1989			1988			1987		1986
Drainage System	Location	Sample Size	Escapement Estimate	0.1	0.2	1.1	0.3	1.2	2.1	0.4	1.3	2.2	1.4	2.3	2.4			
Copper River																		
Upper Copper River *	Miles Lake Sonar	2,114	833,387	0.0	0.1	0.2	9.2	14.0	0.0	0.2	72.6	0.6	0.3	2.7	0.1			
Copper River Delta	Eyak Lake – South Beaches	890	2,500	0.0	0.3	0.2	2.0	8.4	0.0	0.0	87.8	0.1	0.0	1.1	0.0			
	Eyak Lake – Middle Arm	1,276	4,200	0.0	0.6	2.0	3.0	27.7	0.1	0.0	62.5	0.4	1.4	2.2	0.0			
	Eyak Lake – Hatchery Creek	404	1,100	0.0	0.0	9.2	0.2	44.3	0.7	0.0	28.7	6.2	0.2	10.1	0.2			
	McKinley Lake	704	10,700	0.0	2.3	0.9	3.1	23.9	0.0	0.0	69.5	0.1	0.0	0.3	0.0			
	27 Mile Creek	394	1,625	0.0	13.7	2.0	18.8	56.9	0.0	0.0	8.1	0.3	0.0	0.3	0.0			
	39 Mile Creek	479	4,000	0.0	0.8	8.8	7.7	42.2	0.2	0.0	37.2	1.0	0.0	2.1	0.0			
	Martin Lake	476	8,500	0.2	1.1	1.9	4.8	30.5	0.0	0.0	61.1	0.0	0.0	0.4	0.0			
	Little Martin Lake	426	1,900	0.0	0.2	20.2	0.0	70.9	0.2	0.0	7.3	1.2	0.0	0.0	0.0			
	Tokun Lake	475	3,400	0.0	0.0	0.0	0.2	2.3	0.0	0.0	95.2	0.0	0.0	2.3	0.0			
Martin River Slough	210	5,400	0.5	46.2	3.3	11.4	19.0	0.0	0.0	19.5	0.0	0.0	0.0	0.0				
Copper River Delta	Total	5,734	43,325	0.1	7.2	3.2	5.0	27.9	0.1	0.0	55.0	0.4	0.1	1.1	0.0			
Bering River																		
Bering River	Bering Lake	542	23,120	0.0	0.4	0.6	11.6	22.5	0.0	0.0	63.5	0.0	1.3	0.2	0.0			
	Kushtaka Lake	555	867	0.0	0.0	2.9	0.0	39.6	3.2	0.0	34.6	9.7	0.0	9.9	0.0			
Bering River	Total	1,097	23,987	0.0	0.4	0.6	11.2	23.1	0.1	0.0	62.4	0.4	1.2	0.5	0.0			

\* Age composition estimated using samples from personal use and subsistence fisheries at Chitina. Passage date at Miles Lake lagged using an estimated swimming speed obtained from mark and recapture data.

Table 11. Copper/Bering River area coho salmon catch and effort by the commercial common property fishery, by district and fishing period from fish ticket summaries, 1993.

Statistical Week	Period Dates	Copper River			Bering River		
		Hours	Effort <sup>a</sup>	Catch	Hours	Effort <sup>a</sup>	Catch
21	05/17-05/18	24	461	0		Closed	
22	05/23-05/24	36	488	3		Closed	
22	05/26-05/27	36	481	18		Closed	
22	05/29-05/29	12	451	1		Closed	
23	05/31-06/01	24	481	5		Closed	
23	06/03-06/04	48	491	5		Closed	
24	06/06-06/08	48	301	113	24	19	0
24	06/10-06/12	48	327	74	24	5	0
25	06/14-06/16	48	316	378	24	11	0
25	06/17-06/19	60	274	622	36	73	22
26	06/21-06/23	60	277	887	36	21	0
26	06/24-06/26	36	194	340	36	8	0
27	06/28-06/30	48	158	547	48	6	0
27	07/01-07/03	36	157	203	36	6	0
28	07/05-07/07	48	176	442	48	4	0
28	07/08-07/10	36	245	1,397	36	1	0
29	07/12-07/13	36	260	2,395	36	2	0
29	07/15-07/17	36	272	1,990	36	1	0
30	07/19-07/21	48	268	2,110	48	1	0
30	07/22-07/24	36	239	1,872	36	1	0
31	07/26-07/28	48	165	779	48	1	0
31	07/29-07/31	36	132	635	36	1	0
32	08/02-08/04	48	82	641	48	0	0
32	08/05-08/07	36	74	863	36	1	0
33	08/09-08/10	24	109	2,112	24	0	0
34	08/16-08/17	24	181	8,585	24	1	17
34	08/19-08/20	24	79	5,306	24	0	0
35	08/26-08/28	48	290	54,639	48	31	7,417
36	09/02-09/04	48	285	54,139	48	54	18,947
37	09/09-09/10	24	225	31,496	24	68	14,459
38	09/13-09/14	48	235	47,677	48	83	25,911
38	09/16-09/17	24	85	7,163	24	50	10,222
39	09/20-09/22	48	150	26,078	48	63	17,722
39	09/23-09/25	48	142	14,236	48	38	9,803
40	09/27-09/29	48	92	7,124	48	32	6,340
40	09/30-10/02	48	29	3,095	48	27	3,841
41	10/04-10/06	48	37	3,413	48	5	1,132
41	10/07-10/09	48	2	86	48	0	0
Total		1,524	508	281,469	1,224	153	115,833

<sup>a</sup> Number of permits reporting catches.

Table 12. Estimated age composition of Copper/Bering River area coho salmon in commercial common property drift gillnet catches, 1993.

Location	Sample Size	Total Catch	Percentage of Catch by Brood Year and Age Group							
			1991	1990		1989		1988		1987
			1.0	1.1	2.0	1.2	2.1	2.2	3.1	3.2
Copper River	1,196	281,469	0.1	29.7	0.1	0.0	67.0	0.2	2.7	0.1
Bering River	827	115,833	0.0	21.8	0.0	0.1	76.1	0.0	2.1	0.0

Table 13. Prince William Sound chinook salmon weekly catch and effort by the commercial common property fishery, by district and gear type, from fish ticket summaries, 1993.

Purse Seine Fisheries													
Statistical Week	Dates	Northern District			Coghill District			Southwestern District			Unakwik District		
		Hours	Effort <sup>a</sup>	Catch	Hours	Effort <sup>a</sup>	Catch	Hours	Effort <sup>a</sup>	Catch	Hours	Effort <sup>a</sup>	Catch
24	06/06 – 06/12		Closed			Closed						Closed	
25	06/13 – 06/19		Closed			Closed						Closed	
26	06/20 – 06/26		Closed			Closed						Closed	
27	06/27 – 07/03		Closed			Closed						Closed	
28	07/04 – 07/10		Closed			Closed						Closed	
29	07/11 – 07/17		Closed			Closed						Closed	
30	07/18 – 07/24		Closed			Closed						Closed	
31	07/25 – 07/31		Closed			Closed						Closed	
32	08/01 – 08/07		Closed		24	52	14	24	68	2	48	0	0
33	08/08 – 08/14		Closed		48	38	31	72	126	6	48	5	0
34	08/15 – 08/21	64	42	0	64	15	1	160	123	2	48	3	0
35	08/22 – 08/28	92	14	1	72	16	0	168	62	1	48	0	0
36	08/29 – 09/04		Closed		64	4	0	168	12	0	48	0	0
37	09/05 – 09/11		Closed		12	0	0	168	3	0	48	0	0
38	09/12 – 09/18		Closed			Closed		168	0	0	48	0	0
39	09/19 – 09/25		Closed			Closed		92	0	0	48	0	0
Totals		156	45	1	284	72	46	1,020	133	11	384	6	0

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Table 13. (Page 2 of 2).

Gillnet Fisheries														
Statistical Week	Dates	Unakwik Drift Gillnet			Coghill Drift Gillnet			Eshamy Drift and Set Gillnet			Gillnet Total	Purse Seine Total	PWS total catch	
		Hours	Effort <sup>a</sup>	Catch	Hours	Effort <sup>a</sup>	Catch	Hours	Effort <sup>a</sup>	Catch				
33	24	06/06 – 06/12		Closed	60	164	262		Closed		262	0	262	
	25	06/13 – 06/19	24	1	0	48	205	126	24	26	15	141	0	141
	26	06/20 – 06/26	48	13	1	48	264	71	48	32	16	88	0	88
	27	06/27 – 07/03	48	8	2	48	317	62	72	155	13	77	0	77
	28	07/04 – 07/10	48	17	1	36	246	20	36	116	8	29	0	29
	29	07/11 – 07/17	48	9	0	72	91	18	72	68	2	20	0	20
	30	07/18 – 07/24	48	6	1		Closed			Closed	0	1	0	1
	31	07/25 – 07/31	48	4	0		Closed		24	56	0	0	0	0
	32	08/01 – 08/07	48	2	0	24	38	3	60	76	0	3	16	19
	33	08/08 – 08/14	48	5	0	48	80	9	72	54	0	9	37	46
	34	08/15 – 08/21	48	5	0	64	72	2	76	87	3	5	3	8
	35	08/22 – 08/28	48	0	0	168	52	0	168	76	1	1	2	3
	36	08/29 – 09/04	48	0	0	168	54	2	168	25	5	7	0	7
	37	09/05 – 09/11	48	0	0	168	51	1	168	10	0	1	0	1
	38	09/12 – 09/18	48	0	0	168	31	0	168	3	0	0	0	0
	39	09/19 – 09/25	48	0	0	168	21	0	168	1	0	0	0	0
	40	09/26 – 10/02		Closed		168	4	0	168	0	0	0	0	0
	41	10/03 – 10/09		Closed		144	0	0	144	0	0	0	0	0
Totals		696	33	5	1,600	369	576	1,636	230	63	644	58	702	

<sup>a</sup> Number of permits reporting catches.

Table 14. Prince William Sound sockeye salmon weekly catch and effort by the commercial common property fishery, by district and gear type, from fish ticket summaries, 1993.

Purse Seine Fisheries														
Statistical Week	Dates	Northern District			Coghill District			Southwestern District			Unakwik District			
		Hours	Effort <sup>a</sup>	Catch	Hours	Effort <sup>a</sup>	Catch	Hours	Effort <sup>a</sup>	Catch	Hours	Effort <sup>a</sup>	Catch	
34	24	06/06 – 06/12		Closed		Closed		Closed		Closed		Closed		
	25	06/13 – 06/19		Closed		Closed		Closed		Closed		Closed		
	26	06/20 – 06/26		Closed		Closed		Closed		Closed		Closed		
	27	06/27 – 07/03		Closed		Closed		Closed		Closed		Closed		
	28	07/04 – 07/10		Closed		Closed		Closed		Closed		Closed		
	29	07/11 – 07/17		Closed		Closed		Closed		Closed		Closed		
	30	07/18 – 07/24		Closed		Closed		Closed		Closed		Closed		
	31	07/25 – 07/31		Closed		Closed		Closed		Closed		Closed		
	32	08/01 – 08/07		Closed		24	52	3,511	24	68	3,187	48	0	0
	33	08/08 – 08/14		Closed		48	38	1,956	72	126	7,361	48	5	78
	34	08/15 – 08/21	64	42	120	64	15	437	160	123	11,240	48	3	1
	35	08/22 – 08/28	92	14	34	72	16	306	168	62	5,822	48	0	0
	36	08/29 – 09/04		Closed		64	4	40	168	12	482	48	0	0
	37	09/05 – 09/11		Closed		12	0	0	168	3	0	48	0	0
	38	09/12 – 09/18		Closed			Closed		168	0	0	48	0	0
	39	09/19 – 09/25		Closed			Closed		92	0	0	48	0	0
Totals		156	45	154	284	72	6,250	1,020	133	28,092	384	6	79	

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Table 14. (Page 2 of 2).

Gillnet Fisheries														
Statistical Week	Dates	Unakwik Drift Gillnet			Coghill Drift Gillnet			Eshamy Drift and Set Gillnet			Gillnet Total	Purse Seine Total	PWS Total Catch	
		Hours	Effort <sup>a</sup>	Catch	Hours	Effort <sup>a</sup>	Catch	Hours	Effort <sup>a</sup>	Catch				
35	24	06/06 – 06/12		Closed	60	164	338		Closed		338	0	338	
	25	06/13 – 06/19	24	1	156	48	205	1,096	24	26	358	1,610	0	1,610
	26	06/20 – 06/26	48	13	4,175	48	264	2,985	48	32	3,100	10,260	0	10,260
	27	06/27 – 07/03	48	8	3,809	48	317	18,438	72	155	25,074	47,321	0	47,321
	28	07/04 – 07/10	48	17	4,009	36	246	15,613	36	116	25,386	45,008	0	45,008
	29	07/11 – 07/17	48	9	1,456	72	91	9,546	72	68	9,276	20,278	0	20,278
	30	07/18 – 07/24	48	6	458		Closed			Closed		458	0	458
	31	07/25 – 07/31	48	4	109		Closed		24	56	10,410	10,519	0	10,519
	32	08/01 – 08/07	48	2	338	24	38	4,022	60	76	16,345	20,705	6,698	27,403
	33	08/08 – 08/14	48	5	136	48	80	8,355	72	54	11,141	19,632	9,395	29,027
	34	08/15 – 08/21	48	5	45	64	72	1,905	76	87	36,368	38,318	11,798	50,116
	35	08/22 – 08/28	48	0	0	168	52	1,718	168	76	33,906	35,624	6,162	41,786
	36	08/29 – 09/04	48	0	0	168	54	2,060	168	25	8,717	10,777	522	11,299
	37	09/05 – 09/11	48	0	0	168	51	297	168	10	2,085	2,382	0	2,382
	38	09/12 – 09/18	48	0	0	168	31	154	168	3	333	487	0	487
	39	09/19 – 09/25	48	0	0	168	21	5	168	1	25	30	0	30
	40	09/26 – 10/02		Closed		168	4	0	168	0	0	0	0	0
	41	10/03 – 10/09		Closed		144	0	0	144	0	0	0	0	0
Totals		696	33	14,691	1,600	369	66,532	1,636	230	182,524	263,747	34,575	298,322	

<sup>a</sup> Number of permits reporting catches.

Table 15. Estimated age composition of sockeye salmon in Prince William Sound commercial common property gillnet and purse seine catches, 1993.

District	Sample Size	Total Catch	Percentage of Catch by Brood Year and Age Group									
			1990		1989			1988		1987		
			0.2	1.1	0.3	1.2	2.1	1.3	2.2	1.4	2.3	3.2
Coghill	1,451	66,532	0.0	0.3	0.0	57.5	0.1	31.8	6.8	0.2	3.3	0.1
Eshamy	3,123	182,524	0.0	1.5	0.0	71.9	0.0	19.0	6.1	0.1	1.5	0.0
Southwestern	988	28,182	0.2	5.4	0.1	81.7	0.0	7.2	4.9	0.1	0.5	0.0

Table 16. Estimated age composition of sockeye salmon in sampled escapements to Prince William Sound, 1993.

Location	Sample Size	Escapement <sup>a</sup>	Percentage of Escapement by Brood Year and Age Group										
			1990		1989			1988		1987			1986
			0.2	1.1	0.3	1.2	2.1	1.3	2.2	1.4	2.3	3.2	3.3
Coghill Lake	1,661	9,232	0.6	0.0	0.2	5.2	0.0	83.8	2.4	2.7	4.8	0.1	0.2
Eshamy Lake	1,278	42,893	0.7	0.2	0.0	63.0	0.0	10.6	24.8	0.0	0.7	0.0	0.0

<sup>a</sup> Weir counts.

Table 17. Prince William Sound coho salmon weekly catch and effort by the commercial common property fishery, by district and gear type, from fish ticket summaries, 1993.

Purse Seine Fisheries													
Statistical Week	Dates	Northern District			Coghill District			Southwestern District			Unakwik District		
		Hours	Effort <sup>a</sup>	Catch	Hours	Effort <sup>a</sup>	Catch	Hours	Effort <sup>a</sup>	Catch	Hours	Effort <sup>a</sup>	Catch
30	24 06/06 - 06/12		Closed			Closed			Closed			Closed	
	25 06/13 - 06/19		Closed			Closed			Closed			Closed	
	26 06/20 - 06/26		Closed			Closed			Closed			Closed	
	27 06/27 - 07/03		Closed			Closed			Closed			Closed	
	28 07/04 - 07/10		Closed			Closed			Closed			Closed	
	29 07/11 - 07/17		Closed			Closed			Closed			Closed	
	30 07/18 - 07/24		Closed			Closed			Closed			Closed	
	31 07/25 - 07/31		Closed			Closed			Closed			Closed	
	32 08/01 - 08/07		Closed		24	52	312	24	68	528	48	0	0
	33 08/08 - 08/14		Closed		48	38	212	72	126	1,359	48	5	0
	34 08/15 - 08/21	64	42	17	64	15	35	160	123	1,205	48	3	0
	35 08/22 - 08/28	92	14	1	72	16	321	168	62	515	48	0	0
	36 08/29 - 09/04		Closed		64	4	880	168	12	52	48	0	0
	37 09/05 - 09/11		Closed		12	0	0	168	3	0	48	0	0
	38 09/12 - 09/18		Closed			Closed		168	0	0	48	0	0
	39 09/19 - 09/25		Closed			Closed		92	0	0	48	0	0
Totals		156	45	18	284	72	1,760	1,020	133	3,659	384	6	0

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Table 17. (Page 2 of 2).

Gillnet Fisheries														
Statistical Week	Dates	Unakwik Drift Gillnet			Coghill Drift Gillnet			Eshamy Drift and Set Gillnet			Gillnet Total	Purse Seine Total	PWS Total Catch	
		Hours	Effort <sup>a</sup>	Catch	Hours	Effort <sup>a</sup>	Catch	Hours	Effort <sup>a</sup>	Catch				
39	24	06/06 – 06/12		Closed		60	164	0		Closed		0	0	0
	25	06/13 – 06/19	24	1	0	48	205	1	24	26	0	1	0	1
	26	06/20 – 06/26	48	13	0	48	264	6	48	32	0	6	0	6
	27	06/27 – 07/03	48	8	0	48	317	30	72	155	24	54	0	54
	28	07/04 – 07/10	48	17	0	36	246	72	36	116	81	153	0	153
	29	07/11 – 07/17	48	9	0	72	91	91	72	68	12	103	0	103
	30	07/18 – 07/24	48	6	4		Closed			Closed		4	0	4
	31	07/25 – 07/31	48	4	0		Closed		24	56	7	7	0	7
	32	08/01 – 08/07	48	2	0	24	38	292	60	76	29	321	840	1,161
	33	08/08 – 08/14	48	5	0	48	80	982	72	54	134	1,116	1,571	2,687
	34	08/15 – 08/21	48	5	0	64	72	406	76	87	117	523	1,257	1,780
	35	08/22 – 08/28	48	0	0	168	52	2,284	168	76	634	2,918	837	3,755
	36	08/29 – 09/04	48	0	0	168	54	7,519	168	25	300	7,819	932	8,751
	37	09/05 – 09/11	48	0	0	168	51	10,536	168	10	147	10,683	0	10,683
	38	09/12 – 09/18	48	0	0	168	31	9,319	168	3	20	9,339	0	9,339
	39	09/19 – 09/25	48	0	0	168	21	5,876	168	1	0	5,876	0	5,876
	40	09/26 – 10/02		Closed		168	4	484	168	0	0	484	0	484
	41	10/03 – 10/09		Closed		144	0	0	144	0	0	0	0	0
Totals		696	33	4	1,600	369	37,898	1,636	230	1,505	39,407	5,437	44,844	

<sup>a</sup> Number of permits reporting catches.

Table 18. Prince William Sound pink salmon weekly catch and effort by the commercial common property fishery, by district and gear type, from fish ticket summaries, 1993.

Purse Seine Fisheries													
Statistical Week	Dates	Northern District			Coghill District			Southwestern District			Unakwik District		
		Hours	Effort <sup>a</sup>	Catch	Hours	Effort <sup>a</sup>	Catch	Hours	Effort <sup>a</sup>	Catch	Hours	Effort <sup>a</sup>	Catch
24	06/06 -- 06/12		Closed			Closed			Closed			Closed	
25	06/13 -- 06/19		Closed			Closed			Closed			Closed	
26	06/20 -- 06/26		Closed			Closed			Closed			Closed	
27	06/27 -- 07/03		Closed			Closed			Closed			Closed	
28	07/04 -- 07/10		Closed			Closed			Closed			Closed	
29	07/11 -- 07/17		Closed			Closed			Closed			Closed	
30	07/18 -- 07/24		Closed			Closed			Closed			Closed	
31	07/25 -- 07/31		Closed			Closed			Closed			Closed	
32	08/01 -- 08/07		Closed		24	52	52,773	24	68	143,801	48	0	0
33	08/08 -- 08/14		Closed		48	38	26,785	72	126	480,158	48	5	2,725
34	08/15 -- 08/21	64	42	253,946	64	15	139,049	160	123	899,559	48	3	508
35	08/22 -- 08/28	92	14	152,791	72	16	114,181	168	62	825,429	48	0	
36	08/29 -- 09/04		Closed		64	4	19,680	168	12	105,701	48	0	
37	09/05 -- 09/11		Closed		12	0	0	168	3	21,150	48	0	
38	09/12 -- 09/18		Closed			Closed		168	0	0	48	0	
39	09/19 -- 09/25		Closed			Closed		92	0	0	48	0	
Totals		156	45	406,737	284	72	352,468	1,020	133	2,475,798	384	6	3,233

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Table 18. (Page 2 of 2).

		Gillnet Fisheries									Gillnet Total	Purse Seine Total	PWS Total Catch			
Statistical Week	Dates	Unakwik Drift Gillnet			Coghill Drift Gillnet			Eshamy Drift and Set Gillnet								
		Hours	Effort *	Catch	Hours	Effort *	Catch	Hours	Effort *	Catch						
41	24	06/06 – 06/12		Closed		60	164	1		Closed		1		0		1
	25	06/13 – 06/19	24	1	0	48	205	24	24	26	1	25		0		25
	26	06/20 – 06/26	48	13	0	48	264	128	48	32	74	202		0		202
	27	06/27 – 07/03	48	8	1	48	317	1,625	72	155	2,045	3,671		0		3,671
	28	07/04 – 07/10	48	17	7	36	246	1,773	36	116	3,068	4,848		0		4,848
	29	07/11 – 07/17	48	9	12	72	91	1,046	72	68	792	1,850		0		1,850
	30	07/18 – 07/24	48	6	8					Closed		8		0		8
	31	07/25 – 07/31	48	4	20		Closed		24	56	1,145	1,165		0		1,165
	32	08/01 – 08/07	48	2	137	24	38	6,032	60	76	4,147	10,316		196,574		206,890
	33	08/08 – 08/14	48	5	2,172	48	80	11,547	72	54	10,052	23,771		509,668		533,439
	34	08/15 – 08/21	48	5	981	64	72	49,091	76	87	32,492	82,564		1,293,062		1,375,626
	35	08/22 – 08/28	48	0	0	168	52	50,065	168	76	58,105	108,170		1,092,401		1,200,571
	36	08/29 – 09/04	48	0	0	168	54	17,922	168	25	16,711	34,633		125,381		160,014
	37	09/05 – 09/11	48	0	0	168	51	2,000	168	10	1,894	3,894		21,150		25,044
	38	09/12 – 09/18	48	0	0	168	31	24	168	3	16	40		0		40
	39	09/19 – 09/25	48	0	0	168	21	1	168	1	0	1		0		1
	40	09/26 – 10/02		Closed		168	4	0	168	0	0	0		0		0
	41	10/03 – 10/09		Closed		144	0	0	144	0	0	0		0		0
Totals		696	33	3,338	1,600	369	141,279	1,636	230	130,542	275,159	3,238,236	3,513,395			

\* Number of permits reporting catches.

Table 19. Estimated hatchery contributions to pink salmon in the commercial common property harvests, hatchery cost recovery harvests, hatchery brood stock escapements, and total return of pink salmon in Prince William Sound, 1993.

Hatchery	1992 Release	Commercial Common Property Catch <sup>a</sup>	Cost Recovery Sales Harvest <sup>a</sup>	Brood Stock Escapement <sup>a b</sup>	Total Return
Solomon Gulch	86,902,415	329	942,994	169,360	1,112,683
Cannery Creek	132,166,231	435,313	92,450	238,879	766,642
Wally Noerenberg	163,802,656	862,974	270,067	333,782	1,466,823
Armin F. Koernig	112,830,588	1,100,302	243,159	177,744	1,521,205
Main Bay	N/A	0	0	0	N/A
Total	495,701,890	2,398,918	1,548,670	919,765	4,867,353

<sup>a</sup> Preliminary estimates based on recoveries of coded wire tags from hatchery released fish.

<sup>b</sup> Includes holding mortalities, excess fish, and carcasses from fish used for brood stock that are also sold for cost recovery.

Table 20. Prince William Sound chum salmon weekly catch and effort by the commercial common property fishery, by district and gear type, from fish ticket summaries, 1993.

Purse Seine Fisheries													
Statistical Week	Dates	Northern District			Coghill District			Southwestern District			Unakwik District		
		Hours	Effort <sup>a</sup>	Catch	Hours	Effort <sup>a</sup>	Catch	Hours	Effort <sup>a</sup>	Catch	Hours	Effort <sup>a</sup>	Catch
43	24 06/06 - 06/12		Closed			Closed			Closed			Closed	
	25 06/13 - 06/19		Closed			Closed			Closed			Closed	
	26 06/20 - 06/26		Closed			Closed			Closed			Closed	
	27 06/27 - 07/03		Closed			Closed			Closed			Closed	
	28 07/04 - 07/10		Closed			Closed			Closed			Closed	
	29 07/11 - 07/17		Closed			Closed			Closed			Closed	
	30 07/18 - 07/24		Closed			Closed			Closed			Closed	
	31 07/25 - 07/31		Closed			Closed			Closed			Closed	
	32 08/01 - 08/07		Closed		24	52	1,930	24	68	497	48	0	0
	33 08/08 - 08/14		Closed		48	38	1,137	72	126	1,030	48	5	47
	34 08/15 - 08/21	64	42	1,753	64	15	362	160	123	1,423	48	3	20
	35 08/22 - 08/28	92	14	401	72	16	216	168	62	626	48	0	0
	36 08/29 - 09/04		Closed		64	4	0	168	12	16	48	0	0
	37 09/05 - 09/11		Closed		12	0	0	168	3	0	48	0	0
	38 09/12 - 09/18		Closed			Closed		168	0	0	48	0	0
	39 09/19 - 09/25		Closed			Closed		92	0	0	48	0	0
Totals		156	45	2,154	284	72	3,645	1,020	133	3,592	384	6	67

-continued-

Table 20. (Page 2 of 2).

Gillnet Fisheries													
Statistical Week	Dates	Unakwik Drift Gillnet			Coghill Drift Gillnet			Eshamy Drift and Set Gillnet			Gillnet Total	Purse Seine Total	PWS Total Catch
		Hours	Effort <sup>a</sup>	Catch	Hours	Effort <sup>a</sup>	Catch	Hours	Effort <sup>a</sup>	Catch			
24	06/06 – 06/12		Closed		60	164	121,376		Closed		121,376	0	121,376
25	06/13 – 06/19	24	1	0	48	205	84,207	24	26	733	84,940	0	84,940
26	06/20 – 06/26	48	13	0	48	264	151,074	48	32	4,613	155,687	0	155,687
27	06/27 – 07/03	48	8	117	48	317	156,726	72	155	27,084	183,927	0	183,927
28	07/04 – 07/10	48	17	134	36	246	76,649	36	116	9,037	85,820	0	85,820
29	07/11 – 07/17	48	9	82	72	91	32,849	72	68	1,096	34,027	0	34,027
30	07/18 – 07/24	48	6	220		Closed			Closed		220	0	220
31	07/25 – 07/31	48	4	70		Closed		24	56	595	665	0	665
32	08/01 – 08/07	48	2	39	24	38	1,934	60	76	1,487	3,460	2,427	5,887
33	08/08 – 08/14	48	5	155	48	80	5,188	72	54	1,065	6,408	2,214	8,622
34	08/15 – 08/21	48	5	161	64	72	2,801	76	87	513	3,475	3,558	7,033
35	08/22 – 08/28	48	0	0	168	52	1,682	168	76	1,094	2,776	1,243	4,019
36	08/29 – 09/04	48	0	0	168	54	651	168	25	88	739	16	755
37	09/05 – 09/11	48	0	0	168	51	64	168	10	9	73	0	73
38	09/12 – 09/18	48	0	0	168	31	6	168	3	0	6	0	6
39	09/19 – 09/25	48	0	0	168	21	1	168	1	0	1	0	1
40	09/26 – 10/02		Closed		168	4	0	168	0	0	0	0	0
41	10/03 – 10/09		Closed		144	0	0	144	0	0	0	0	0
Totals		696	33	978	1,600	369	635,208	1,636	230	47,414	683,600	9,458	693,058

<sup>a</sup> Number of permits reporting catches.

Table 21. Estimated age composition of chum salmon in Prince William Sound commercial common property purse seine and gillnet catches, 1993.

Gear Type or Fishery	District	Statistical Area	Sample Size	Total Catch	Percentage of Catch by Brood Year and Age Group			
					1990	1989	1988	1987
					0.2	0.3	0.4	0.5
Purse Seine	Southwestern	226	29	3,592	3.4	79.3	17.2	0.0
Purse Seine/Drift Gillnet	Coghill	223	1,938	638,853	0.2	48.4	51.1	0.2
Drift and Set Gillnet	Eshamy	225	899	47,414	0.0	76.8	22.8	0.4
Fisheries Total			2,866	689,859	0.2	50.5	49.0	0.2

Table 22. Estimated hatchery contributions to chum salmon in the commercial common property harvests, hatchery cost recovery harvests, hatchery brood stock escapements, and total chum salmon hatchery run to Prince William Sound, 1993.

Hatchery	Commercial Common Property Catch <sup>a</sup>	Cost Recovery Sales Harvest <sup>b</sup>	Brood Stock Escapement <sup>c</sup>	Total Hatchery Run
Solomon Gulch	N/A	9,101	9,033	18,134
Cannery Creek	N/A	688	N/A	688
Wally Noerenberg	N/A	463,591	112,383	575,974
Armin F. Koernig	N/A	5	N/A	5
Main Bay	N/A	1,763	N/A	1,763
Total	0	475,148	121,416	596,564

<sup>a</sup> Contributions to the commercial common property fishery could not be estimated because not all release years were coded wire tagged.

<sup>b</sup> Does not include brood stock carcass sales. Data are from fish ticket information.

<sup>c</sup> Includes holding mortalities, excess fish, and carcasses from fish used for brood stock that are also sold for cost recovery.

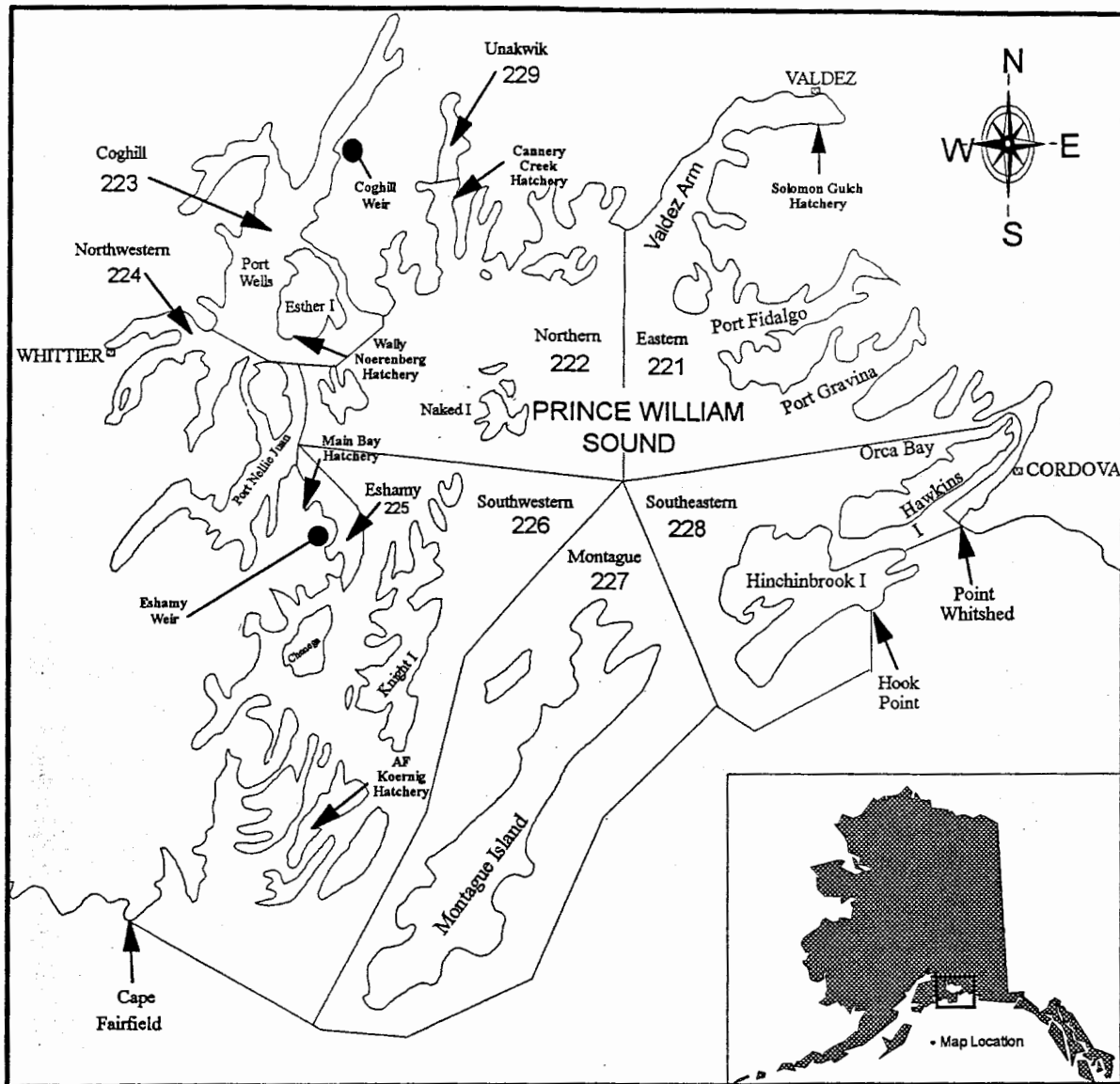


Figure 1. Prince William Sound area showing commercial fishing districts, hatcheries, and weir locations.

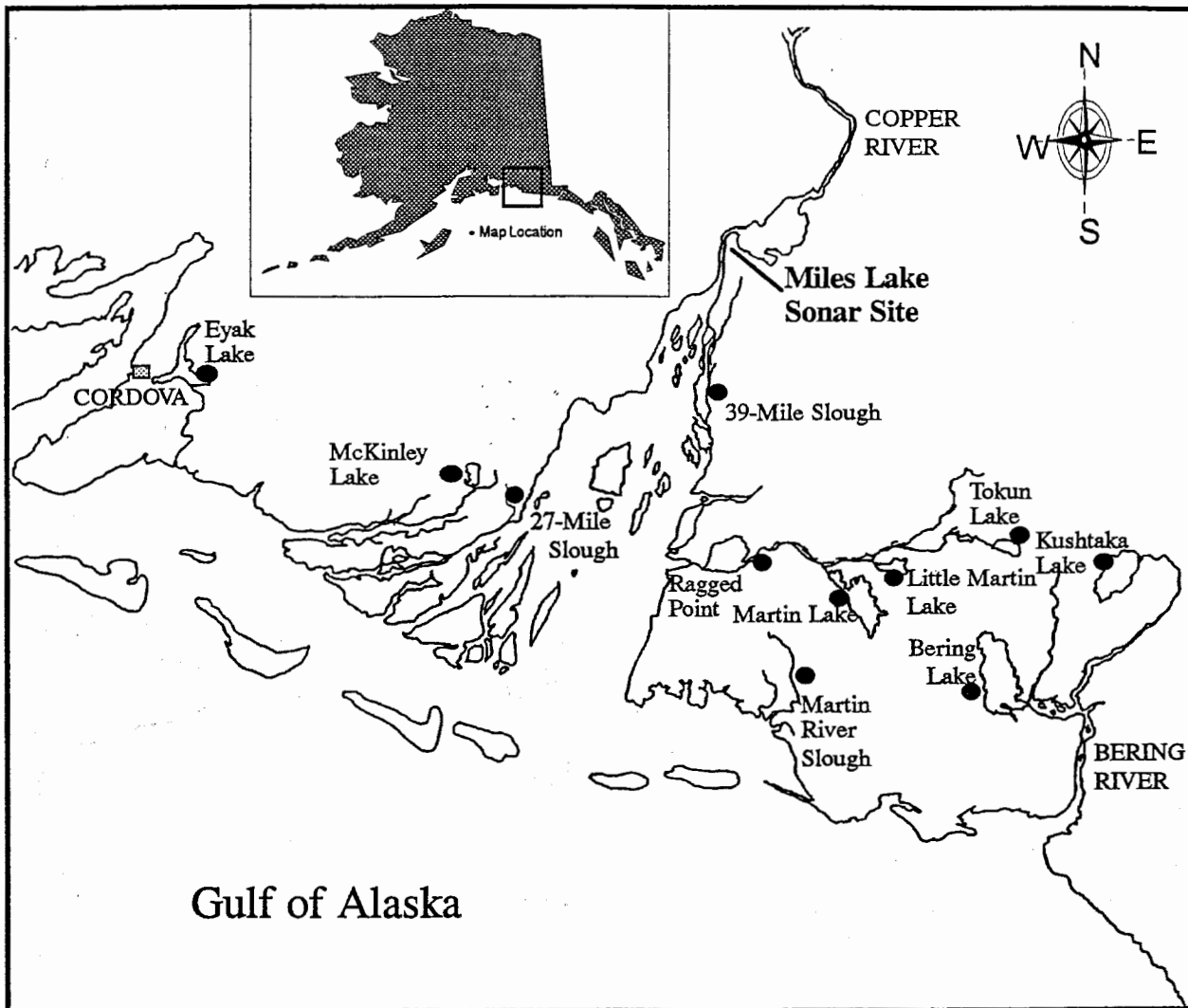


Figure 2. The Copper/Bering River area and the major coastal spawning areas which contribute to the commercial salmon fisheries.



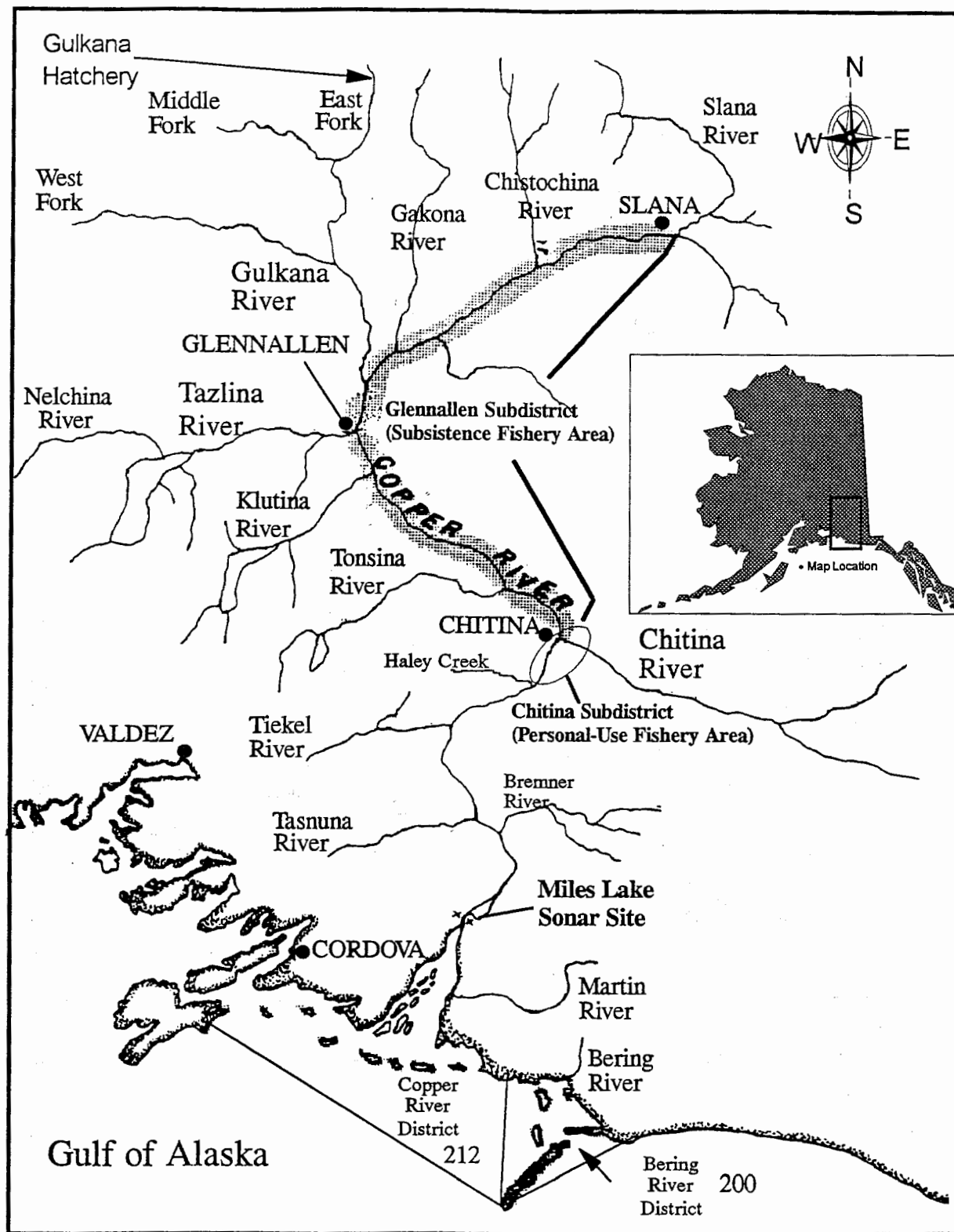


Figure 3. The location of the personal-use fishery near Chitina and the subsistence fishery which extends from Chitina to Slana along the upper Copper River.

# CATCH

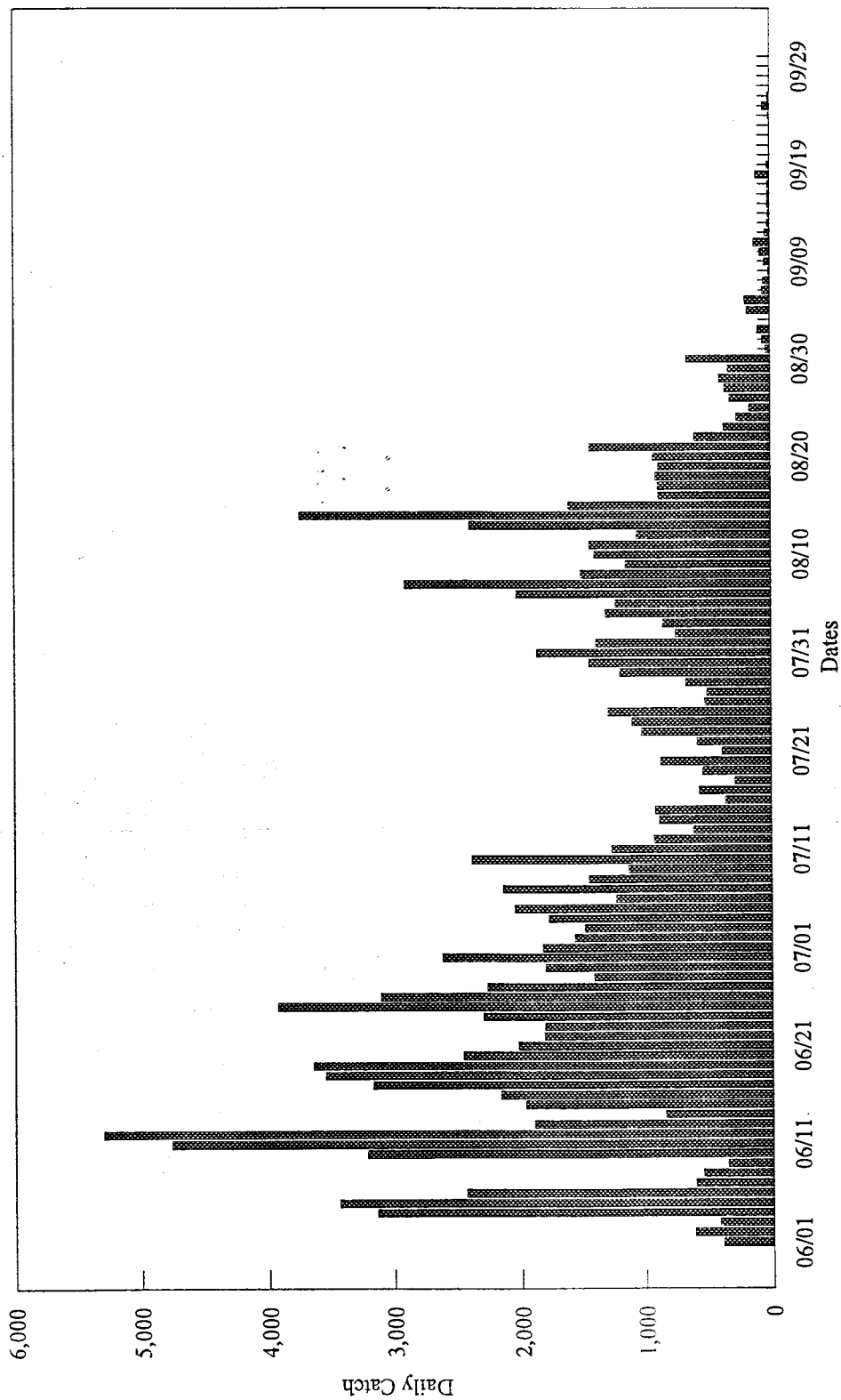
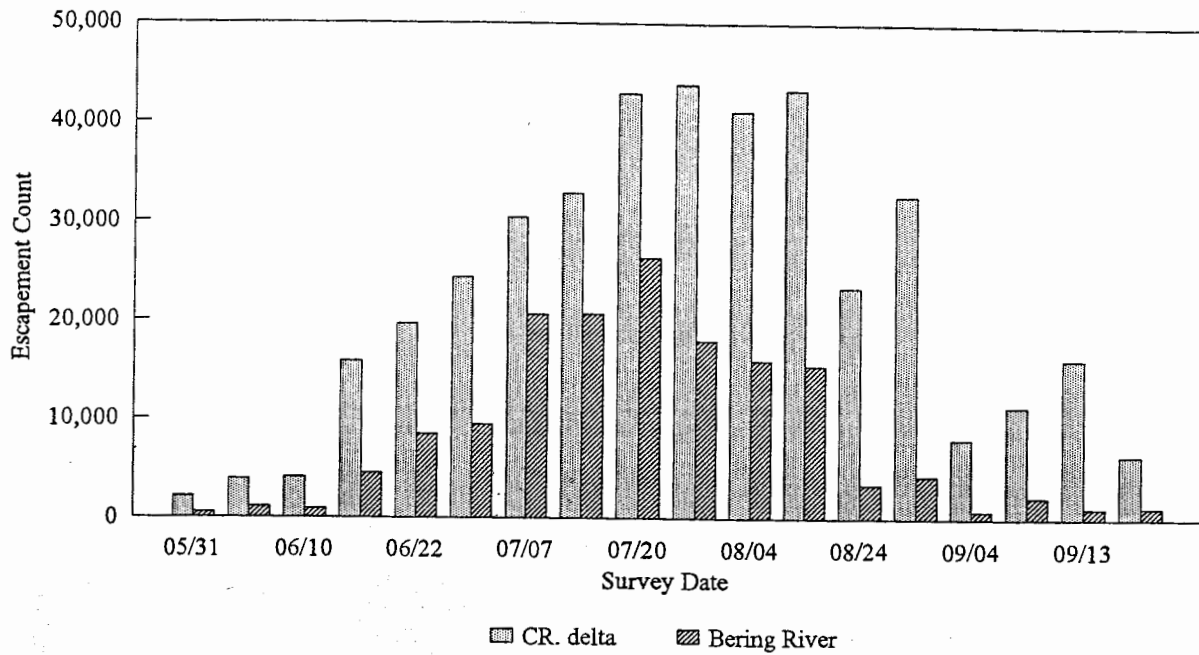


Figure 4. Daily catches of sockeye salmon in the combined personal-use and subsistence fisheries from the upper Copper River, 1993.

### COPPER/BERING AERIAL COUNTS



### MILES LAKE SONAR COUNTS

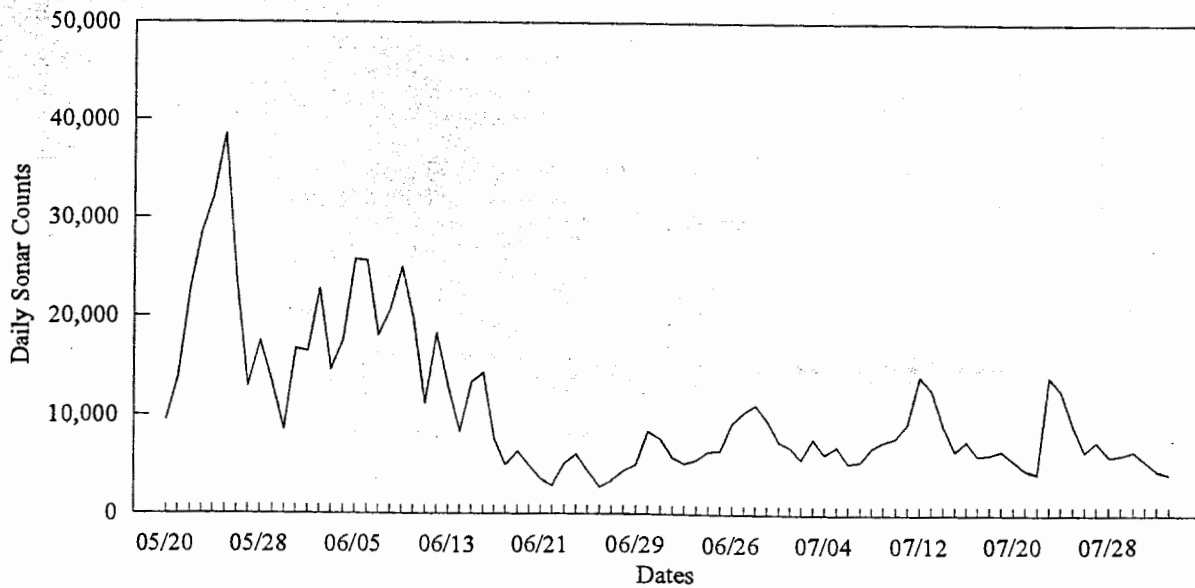
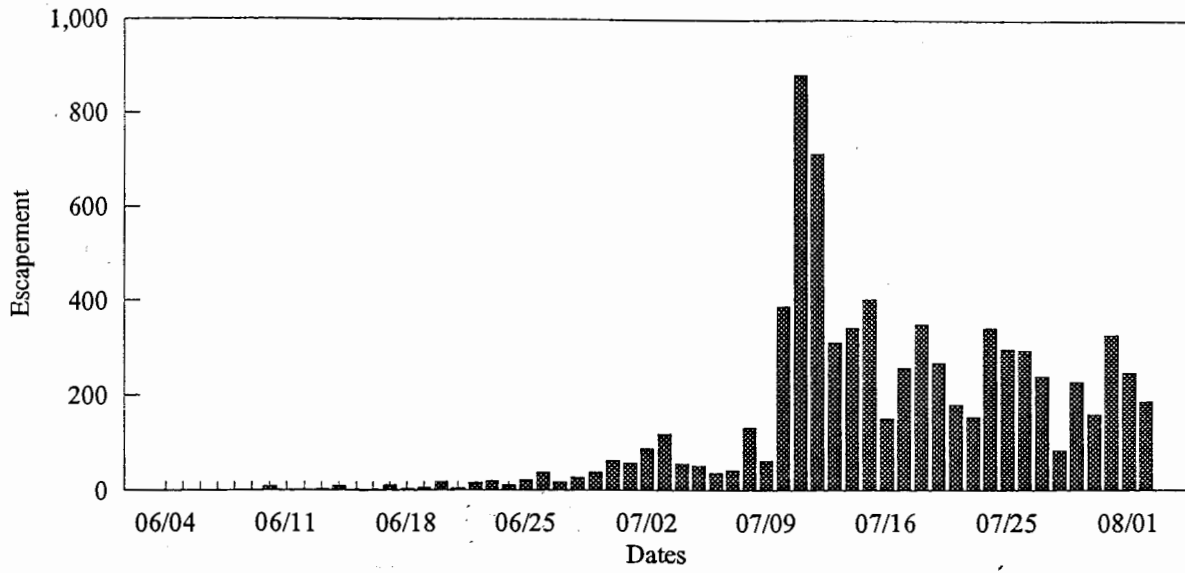


Figure 5. Aerial escapement counts of sockeye salmon runs to the Copper River delta and Bering River area by survey date, and the daily escapement estimates from the Miles Lake sonar, 1993.

### COGHILL WEIR



### ESHAMY WEIR

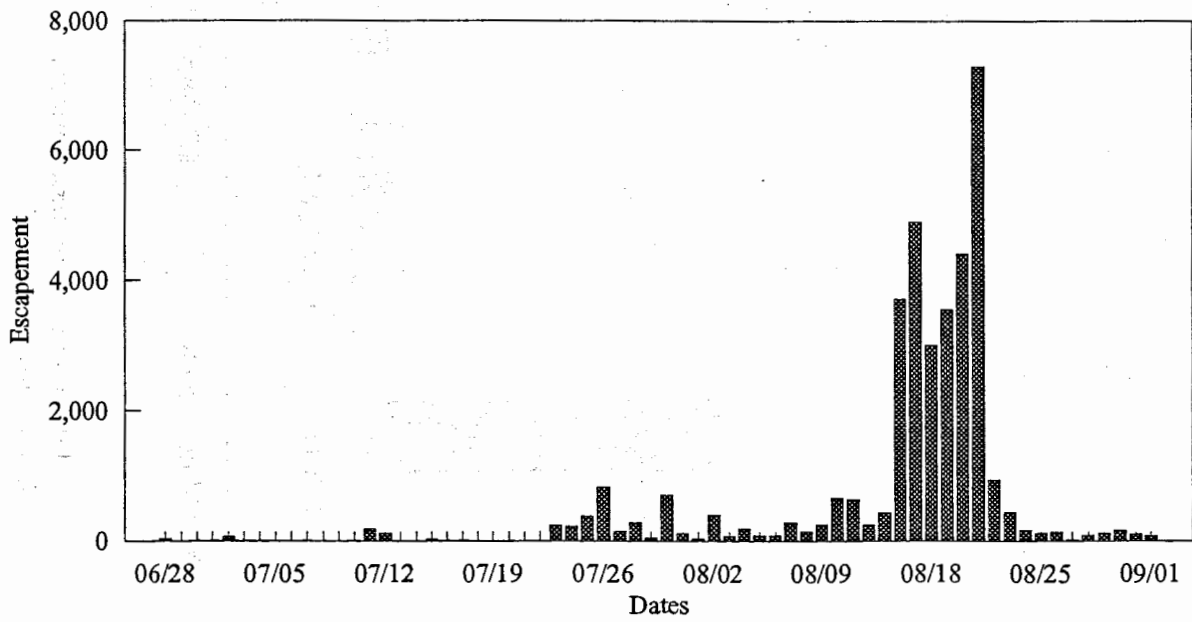


Figure 6. Daily sockeye salmon escapement through the weirs at Coghill Lake and Eshamy Lagoon, Prince William Sound, 1993.

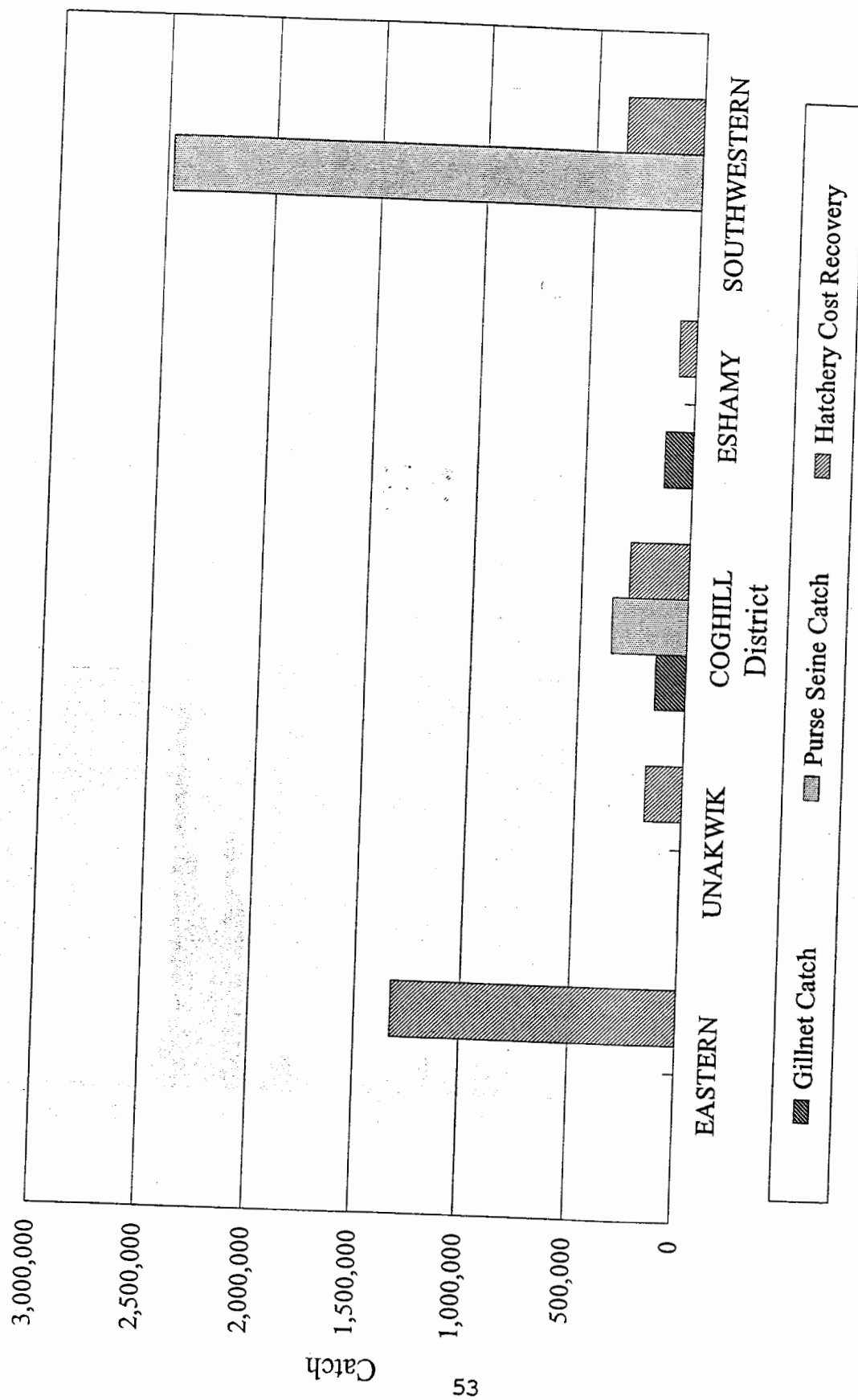


Figure 7. Purse seine and gillnet commercial common property harvests and hatchery cost recovery of pink salmon in Prince William Sound by district, 1993.

**Appendix A**  
**Age and Sex Data for Commercial Common Property Salmon Catches**  
**From the Copper and Bering Rivers (Districts 212 and 200)**

Appendix A.1. Temporally stratified age and sex composition of chinook salmon harvested in the Copper River District commercial common property drift gillnet fishery, 1993.

		Brood Year and Age Group												Total
		1990		1989		1988			1987			1986		
		0.2	1.1	0.3	1.2	0.4	1.3	2.2	0.5	1.4	2.3	1.5	2.4	
Stratum dates: 05/16 – 05/22														
Sampling dates: 05/18 – 05/18														
Sample size: 514														
Female	Percent of sample	0.0	0.0	0.0	2.9	0.0	49.8	0.0	0.0	16.1	0.6	0.6	0.2	70.2
	Number in catch	0	0	0	186	0	3,175	0	0	1,029	37	37	12	4,477
Male	Percent of sample	0.0	0.0	0.2	1.4	0.0	12.8	0.2	0.0	13.0	0.0	0.8	0.6	29.0
	Number in catch	0	0	12	87	0	819	12	0	831	0	50	37	1,848
Total	Percent of sample	0.0	0.0	0.2	4.5	0.0	63.0	0.2	0.0	29.4	0.6	1.4	0.8	100.0
	Number in catch	0	0	12	285	0	4,018	12	0	1,873	37	87	50	6,375
	Standard error	0	0	12	58	0	136	12	0	128	21	33	25	
Stratum dates: 05/23 – 05/24														
Sampling dates: 05/24 – 05/24														
Sample size: 456														
Female	Percent of sample	0.2	0.0	0.0	1.1	0.0	37.1	0.0	0.0	12.1	2.9	0.7	0.7	54.6
	Number in catch	18	0	0	88	0	2,964	0	0	965	228	53	53	4,367
Male	Percent of sample	0.0	0.0	0.0	4.4	0.2	27.2	0.0	0.0	12.3	0.2	0.4	0.7	45.4
	Number in catch	0	0	0	351	18	2,175	0	0	982	18	35	53	3,631
Total	Percent of sample	0.2	0.0	0.0	5.5	0.2	64.3	0.0	0.0	24.3	3.1	1.1	1.3	100.0
	Number in catch	18	0	0	438	18	5,139	0	0	1,947	246	88	105	7,998
	Standard error	18	0	0	85	18	180	0	0	161	65	39	43	
Stratum dates: 05/26 – 05/29														
Sampling dates: 05/27 – 05/28														
Sample size: 544														
Female	Percent of sample	0.0	0.0	0.0	1.1	0.4	30.7	0.2	0.2	14.0	1.7	0.7	0.6	49.4
	Number in catch	0	0	0	53	18	1,471	9	9	669	79	35	26	2,369
Male	Percent of sample	0.4	0.2	0.0	5.3	0.0	30.1	0.0	0.0	12.7	1.1	0.6	0.0	50.4
	Number in catch	18	9	0	255	0	1,444	0	0	608	53	26	0	2,413
Total	Percent of sample	0.4	0.2	0.0	6.4	0.4	60.8	0.2	0.2	26.8	2.8	1.3	0.6	100.0
	Number in catch	18	9	0	308	18	2,915	9	9	1,286	132	62	26	4,791
	Standard error	12	9	0	50	12	100	9	9	91	34	23	15	

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		Brood Year and Age Group												Total	
		1990		1989		1988			1987			1986			
		0.2	1.1	0.3	1.2	0.4	1.3	2.2	0.5	1.4	2.3	1.5	2.4		
Stratum dates: 05/31 - 06/12															
Sampling dates: 06/04 - 06/04															
Sample size: 469															
Female	Percent of sample	0.2	0.0	0.0	1.7	0.0	37.3	0.4	0.0	12.4	0.0	0.6	0.4	53.1	
	Number in catch	18	0	0	144	0	3,154	36	0	1,045	0	54	36	4,488	
Male	Percent of sample	0.2	0.4	0.0	6.2	0.0	26.9	0.0	0.0	7.9	1.1	0.6	0.4	43.7	
	Number in catch	18	36	0	523	0	2,271	0	0	667	90	54	36	3,695	
Total	Percent of sample	0.4	0.4	0.0	8.1	0.0	66.1	0.4	0.0	21.1	1.1	1.5	0.9	100.0	
	Number in catch	36	36	0	685	0	5,587	36	0	1,784	90	126	72	8,453	
	Standard error	25	25	0	107	0	185	25	0	159	40	47	36		
Stratum dates: 06/14 - 09/03															
Sampling dates: 06/16 - 06/16															
Sample size: 60															
Female	Percent of sample	0.0	0.0	0.0	5.0	0.0	21.7	0.0	0.0	13.3	1.7	0.0	1.7	43.3	
	Number in catch	0	0	0	106	0	457	0	0	281	35	0	35	914	
Male	Percent of sample	1.7	0.0	0.0	6.7	0.0	33.3	0.0	0.0	11.7	0.0	1.7	1.7	56.7	
	Number in catch	35	0	0	141	0	703	0	0	246	0	35	35	1,196	
Total	Percent of sample	1.7	0.0	0.0	11.7	0.0	55.0	0.0	0.0	25.0	1.7	1.7	3.3	100.0	
	Number in catch	35	0	0	246	0	1,161	0	0	528	35	35	70	2,110	
	Standard error	35	0	0	88	0	137	0	0	119	35	35	49		
Strata Combined: 05/16 - 09/03															
Sampling dates: 05/18 - 06/16															
Sample size: 2,043															
Female	Percent of sample	0.1	0.0	0.0	1.9	0.1	37.7	0.2	0.0	13.4	1.3	0.6	0.5	55.9	
	Number in catch	36	0	0	576	18	11,221	45	9	3,990	380	179	163	16,616	
Male	Percent of sample	0.2	0.2	0.0	4.6	0.1	24.9	0.0	0.0	11.2	0.5	0.7	0.5	43.0	
	Number in catch	71	45	12	1,356	18	7,412	12	0	3,334	160	200	161	12,782	
Total	Percent of sample	0.4	0.2	0.0	6.6	0.1	63.3	0.2	0.0	25.0	1.8	1.3	1.1	100.0	
	Number in catch	106	45	12	1,963	35	18,820	57	9	7,417	540	397	324	29,727	
	Standard error	48	27	12	180	22	337	30	9	300	93	81	80		

Appendix A.2. Temporally stratified age and sex composition of sockeye salmon harvested in the Copper River District commercial common property drift gillnet fishery, 1993.

		Brood Year and Age Group										Total
		1990	1989		1988			1987		1986		
		0.2	0.3	1.2	0.4	1.3	2.2	1.4	2.3	2.4	3.3	
Stratum dates:	05/17 - 05/23											
Sampling dates:	05/18											
Sample size:	526											
Female	Percent of sample	0.0	6.5	0.2	0.0	27.0	0.0	0.4	12.2	0.4	0.0	46.6
	Number in catch	0	6,570	193	0	27,439	0	386	12,367	386	0	47,342
Male	Percent of sample	0.0	12.7	0.8	0.0	27.6	0.0	0.0	12.4	0.0	0.0	53.4
	Number in catch	0	12,947	773	0	28,019	0	0	12,560	0	0	54,298
Total	Percent of sample	0.0	19.2	1.0	0.0	54.6	0.0	0.4	24.5	0.4	0.0	100.0
	Number in catch	0	19,516	966	0	55,458	0	386	24,927	386	0	101,640
	Standard error	0	1,747	430	0	2,209	0	273	1,908	273	0	
Stratum dates:	05/24 - 05/29											
Sampling dates:	05/24											
Sample size:	541											
Female	Percent of sample	0.0	9.2	2.0	0.2	25.9	0.4	0.4	10.0	0.0	0.2	48.2
	Number in catch	0	18,714	4,117	374	52,400	749	749	20,211	0	374	97,688
Male	Percent of sample	0.0	11.1	0.7	0.0	33.3	0.0	0.4	6.1	0.2	0.0	51.8
	Number in catch	0	22,457	1,497	0	67,371	0	749	12,351	374	0	104,800
Total	Percent of sample	0.0	20.3	2.8	0.2	59.1	0.4	0.7	16.1	0.2	0.2	100.0
	Number in catch	0	41,171	5,614	374	119,771	749	1,497	32,563	374	374	202,488
	Standard error	0	3,507	1,431	374	4,283	529	746	3,201	374	374	
Stratum dates:	05/31 - 06/04											
Sampling dates:	06/01											
Sample size:	534											
Female	Percent of sample	0.2	9.2	5.1	0.0	36.3	0.0	0.0	6.2	0.0	0.0	56.9
	Number in catch	361	17,684	9,744	0	70,015	0	0	11,910	0	0	109,714
Male	Percent of sample	0.2	3.7	6.2	0.0	28.5	0.4	0.0	4.1	0.0	0.0	43.1
	Number in catch	361	7,218	11,910	0	54,857	722	0	7,940	0	0	83,008
Total	Percent of sample	0.4	12.9	11.2	0.0	64.8	0.4	0.0	10.3	0.0	0.0	100.0
	Number in catch	722	24,902	21,654	0	124,872	722	0	19,850	0	0	192,722
	Standard error	510	2,800	2,636	0	3,987	510	0	2,537	0	0	

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## Appendix A.2. (Page 2 of 4).

		Brood Year and Age Group										Total
		1990	1989		1988			1987		1986		
		0.2	0.3	1.2	0.4	1.3	2.2	1.4	2.3	2.4	3.3	
Stratum dates:	06/06 - 06/12											
Sampling dates:	06/08											
Sample size:	559											
Female	Percent of sample	0.2	8.2	10.4	0.2	36.5	0.7	0.0	2.3	0.0	0.0	58.5
	Number in catch	367	16,884	21,288	367	74,876	1,468	0	4,771	0	0	120,021
Male	Percent of sample	0.7	3.4	7.9	0.0	27.2	0.0	0.2	2.1	0.0	0.0	41.5
	Number in catch	1,468	6,974	16,150	0	55,790	0	367	4,404	0	0	85,153
Total	Percent of sample	0.9	11.6	18.2	0.2	63.7	0.7	0.2	4.5	0.0	0.0	100.0
	Number in catch	1,835	23,857	37,438	367	130,665	1,468	367	9,176	0	0	205,174
	Standard error	818	2,784	3,355	367	4,177	732	367	1,795	0	0	
Stratum dates:	06/14 - 06/19											
Sampling dates:	06/16											
Sample size:	557											
Female	Percent of sample	0.0	4.1	5.0	0.0	36.8	0.4	0.2	1.8	0.0	0.0	48.3
	Number in catch	0	5,379	6,548	0	47,944	468	234	2,339	0	0	62,912
Male	Percent of sample	0.4	4.1	9.9	0.0	34.8	0.0	1.1	1.4	0.0	0.0	51.7
	Number in catch	468	5,379	12,863	0	45,371	0	1,403	1,871	0	0	67,355
Total	Percent of sample	0.4	8.3	14.9	0.0	71.6	0.4	1.3	3.2	0.0	0.0	100.0
	Number in catch	468	10,758	19,411	0	93,315	468	1,637	4,210	0	0	130,267
	Standard error	330	1,521	1,967	0	2,490	330	615	977	0	0	
Stratum dates:	06/21 - 06/30											
Sampling dates:	06/26											
Sample size:	568											
Female	Percent of sample	0.0	6.5	5.6	0.0	37.5	0.4	0.2	0.9	0.0	0.0	51.1
	Number in catch	0	10,043	8,686	0	57,813	543	271	1,357	0	0	78,713
Male	Percent of sample	0.2	2.3	9.0	0.0	35.0	0.5	0.5	1.4	0.0	0.0	48.9
	Number in catch	271	3,528	13,843	0	54,013	814	814	2,171	0	0	75,455
Total	Percent of sample	0.2	8.8	14.6	0.0	72.5	0.9	0.7	2.3	0.0	0.0	100.0
	Number in catch	271	13,571	22,528	0	111,826	1,357	1,086	3,528	0	0	154,168
	Standard error	271	1,834	2,287	0	2,890	605	541	968	0	0	

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## Appendix A.2. (Page 3 of 4).

		Brood Year and Age Group										Total	
		1990	1989		1988			1987		1986			
		0.2	0.3	1.2	0.4	1.3	2.2	1.4	2.3	2.4	3.3		
Stratum dates:	07/01 - 07/10												
Sampling dates:	07/06												
Sample size:	549												
Female	Percent of sample	0.0	2.7	9.8	0.0	27.9	0.2	0.2	1.1	0.0	0.0	41.9	
	Number in catch	0	4,309	15,511	0	43,947	287	287	1,723	0	0	66,064	
Male	Percent of sample	0.0	3.1	19.3	0.2	34.1	0.2	0.5	0.7	0.0	0.0	58.1	
	Number in catch	0	4,883	30,447	287	53,713	287	862	1,149	0	0	91,628	
Total	Percent of sample	0.0	5.8	29.1	0.2	61.9	0.4	0.7	1.8	0.0	0.0	100.0	
	Number in catch	0	9,192	45,958	287	97,660	574	1,149	2,872	0	0	157,692	
	Standard error	0	1,578	3,061	287	3,271	406	573	901	0	0		
Sampling dates:	07/17												
Sample size:	575												
Female	Percent of sample	0.0	2.8	7.8	0.2	34.6	0.7	0.2	1.4	0.0	0.0	47.7	
	Number in catch	0	4,384	12,331	274	54,532	1,096	274	2,192	0	0	75,084	
Male	Percent of sample	0.0	1.7	13.9	0.0	32.0	1.6	0.3	2.8	0.0	0.0	52.3	
	Number in catch	0	2,740	21,922	0	50,421	2,466	548	4,384	0	0	82,482	
Total	Percent of sample	0.0	4.5	21.7	0.2	66.6	2.3	0.5	4.2	0.0	0.0	100.0	
	Number in catch	0	7,125	34,253	274	104,953	3,562	822	6,577	0	0	157,566	
	Standard error	0	1,367	2,713	274	3,102	978	474	1,315	0	0		
Stratum dates:	07/21 - 09/24												
Sampling dates:	07/27												
Sample size:	531												
Female	Percent of sample	0.0	3.4	8.3	0.0	36.0	0.4	0.4	1.7	0.0	0.0	50.1	
	Number in catch	0	3,272	7,998	0	34,717	364	364	1,636	0	0	48,349	
Male	Percent of sample	0.0	2.3	7.7	0.0	37.7	0.8	0.2	1.3	0.0	0.0	49.9	
	Number in catch	0	2,181	7,452	0	36,353	727	182	1,272	0	0	48,168	
Total	Percent of sample	0.0	5.6	16.0	0.0	73.6	1.1	0.6	3.0	0.0	0.0	100.0	
	Number in catch	0	5,453	15,450	0	71,070	1,091	545	2,908	0	0	96,517	
	Standard error	0	968	1,537	0	1,847	443	314	717	0	0		

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Appendix A.2. (Page 4 of 4).

		Brood Year and Age Group										Total
		1990	1989		1988			1987		1986		
		0.2	0.3	1.2	0.4	1.3	2.2	1.4	2.3	2.4	3.3	
Strata Combined: 05/17 – 09/24												
Sampling dates: 05/18 – 07/27												
Sample size: 4,940												
Female	Percent of sample	0.1	6.2	6.2	0.1	33.2	0.4	0.2	4.2	0.0	0.0	50.5
	Number in catch	728	87,239	86,416	1,015	463,682	4,974	2,565	58,507	386	374	705,887
Male	Percent of sample	0.2	4.9	8.4	0.0	31.9	0.4	0.4	3.4	0.0	0.0	49.5
	Number in catch	2,568	68,307	116,857	287	445,908	5,017	4,925	48,104	374	0	692,347
Total	Percent of sample	0.2	11.1	14.5	0.1	65.1	0.7	0.5	7.6	0.1	0.0	100.0
	Number in catch	3,296	155,546	203,273	1,303	909,590	9,991	7,490	106,611	761	374	1,398,234
	Standard error	1,054	6,474	6,973	658	9,739	1,693	1,446	5,338	463	374	

Appendix A.3. Temporally stratified age and sex composition of coho salmon in the Copper River District commercial common property drift gillnet fishery, 1993.

		Brood Year and Age Group							Total
		1991	1990		1989	1988		1987	
		1.0	1.1	2.0	2.1	2.2	3.1	3.2	
Stratum dates: 05/23 – 08/19									
Sampling dates: 08/20									
Sample size: 389									
Female	Percent of sample	0.3	10.5	0.0	19.3	0.0	0.0	0.0	30.1
	Number in catch	73	2,984	0	5,459	0	0	0	8,515
Male	Percent of sample	0.0	26.0	0.0	43.2	0.0	0.3	0.0	69.4
	Number in catch	0	7,351	0	12,227	0	73	0	19,651
Total	Percent of sample	0.3	36.8	0.0	62.7	0.0	0.3	0.0	100.0
	Number in catch	73	10,408	0	17,759	0	73	0	28,312
	Standard error	73	693	0	695	0	73	0	
Stratum dates: 08/20 – 09/09									
Sampling dates: 09/04									
Sample size: 400									
Female	Percent of sample	0.0	21.3	0.0	34.3	0.0	0.3	0.0	55.8
	Number in catch	0	26,463	0	42,652	0	311	0	69,427
Male	Percent of sample	0.3	16.5	0.3	26.0	0.0	0.8	0.0	43.8
	Number in catch	311	20,548	311	32,378	0	934	0	54,483
Total	Percent of sample	0.3	37.8	0.3	60.8	0.0	1.0	0.0	100.0
	Number in catch	311	47,011	311	75,653	0	1,245	0	124,532
	Standard error	311	3,022	311	3,044	0	620	0	
Stratum dates: 09/10 – 10/08									
Sampling dates: 09/22									
Sample size: 407									
Female	Percent of sample	0.0	14.0	0.0	44.0	0.2	2.9	0.0	61.2
	Number in catch	0	18,014	0	56,570	316	3,792	0	78,692
Male	Percent of sample	0.0	6.4	0.0	30.0	0.2	2.0	0.2	38.8
	Number in catch	0	8,217	0	38,556	316	2,528	316	49,933
Total	Percent of sample	0.0	20.4	0.0	74.0	0.5	4.9	0.2	100.0
	Number in catch	0	26,231	0	95,126	632	6,321	316	128,625
	Standard error	0	2,572	0	2,802	446	1,380	316	
<b>Strata Combined: 05/23 – 10/08</b>									
Sampling dates: 08/20 – 09/22									
Sample size: 1,196									
Female	Percent of sample	0.0	16.9	0.0	37.2	0.1	1.5	0.0	55.6
	Number in catch	73	47,461	0	104,681	316	4,104	0	156,634
Male	Percent of sample	0.1	12.8	0.1	29.5	0.1	1.3	0.1	44.1
	Number in catch	311	36,116	311	83,162	316	3,535	316	124,067
Total	Percent of sample	0.1	29.7	0.1	67.0	0.2	2.7	0.1	100.0
	Number in catch	384	83,649	311	188,537	632	7,639	316	281,469
	Standard error	320	4,029	311	4,195	446	1,515	316	

Appendix A.4. Temporally stratified age and sex composition of coho salmon harvested in the Bering River District commercial common property drift gillnet fishery, 1993.

		Brood Year and Age Group				Total
		1990	1989		1988	
		1.1	1.2	2.1	3.1	
Stratum dates: 06/18 – 09/10						
Sampling dates: 09/05						
Sample size: 382						
Female	Percent of sample	15.7	0.0	31.2	0.3	47.1
	Number in catch	6,418	0	12,729	107	19,254
Male	Percent of sample	20.4	0.3	30.6	1.6	52.9
	Number in catch	8,344	107	12,515	642	21,608
Total	Percent of sample	36.1	0.3	61.8	1.8	100.0
	Number in catch	14,762	107	25,245	749	40,862
	Standard error	1,006	107	1,017	281	
Stratum dates: 09/13 – 09/17						
Sampling dates: 09/16						
Sample size: 147						
Female	Percent of sample	6.8	0.0	27.9	0.0	34.7
	Number in catch	2,458	0	10,078	0	12,536
Male	Percent of sample	8.8	0.0	43.5	1.4	53.7
	Number in catch	3,195	0	15,731	492	19,418
Total	Percent of sample	16.3	0.0	81.0	2.7	100.0
	Number in catch	5,899	0	29,251	983	36,133
	Standard error	1,105	0	1,174	487	
Stratum dates: 09/20 – 10/06						
Sampling dates: 09/23						
Sample size: 298						
Female	Percent of sample	7.0	0.0	43.6	1.7	52.3
	Number in catch	2,737	0	16,943	652	20,331
Male	Percent of sample	4.7	0.0	42.6	0.0	47.3
	Number in catch	1,825	0	16,552	0	18,376
Total	Percent of sample	11.7	0.0	86.6	1.7	100.0
	Number in catch	4,562	0	33,625	652	38,838
	Standard error	726	0	768	289	
Strata Combined: 06/18 – 10/06						
Sampling dates: 09/05 – 09/23						
Sample size: 827						
Female	Percent of sample	10.0	0.0	34.3	0.7	45.0
	Number in catch	11,613	0	39,750	759	52,122
Male	Percent of sample	11.5	0.1	38.7	1.0	51.3
	Number in catch	13,364	107	44,798	1,133	59,402
Total	Percent of sample	21.8	0.1	76.1	2.1	100.0
	Number in catch	25,222	107	88,120	2,384	115,833
	Standard error	1,661	107	1,733	632	

**Appendix B**  
**Personal–Use, Subsistence, and Sport Fish Salmon Catches**  
**From the Upper Copper River**

Appendix B.1. Daily catches of chinook, sockeye, and coho salmon in the personal–use and subsistence fisheries on the upper Copper River, 1993.

Date	Personal–Use Catch						Subsistence Catch						Combined Catches					
	Chinook		Sockeye		Coho		Chinook		Sockeye		Coho		Chinook		Sockeye		Coho	
	Daily	Cum.	Daily	Cum.	Daily	Cum.	Daily	Cum.	Daily	Cum.	Daily	Cum.	Daily	Cum.	Daily	Cum.	Daily	Cum.
06/01	0	0	18	18	0	0	21	21	380	380	0	0	21	21	398	398	0	0
06/02	0	0	10	28	0	0	44	65	608	988	0	0	44	65	618	1,016	0	0
06/03	5	5	38	66	0	0	28	93	387	1,375	0	0	33	98	425	1,441	0	0
06/04	148	153	2,163	2,229	0	0	71	164	972	2,347	0	0	219	317	3,135	4,576	0	0
06/05	196	349	2,492	4,721	0	0	29	193	942	3,289	0	0	225	542	3,434	8,010	0	0
06/06	127	476	1,680	6,401	0	0	118	311	757	4,046	0	0	245	787	2,437	10,447	0	0
06/07	3	479	78	6,479	0	0	12	323	530	4,576	0	0	15	802	608	11,055	0	0
06/08	0	479	12	6,491	0	0	19	342	536	5,112	0	0	19	821	548	11,603	0	0
06/09	0	479	13	6,504	0	0	23	365	342	5,454	0	0	23	844	355	11,958	0	0
06/10	59	538	1,423	7,927	0	0	127	492	1,790	7,244	0	0	186	1,030	3,213	15,171	0	0
06/11	285	823	4,116	12,043	0	0	11	503	644	7,888	0	0	296	1,326	4,760	19,931	0	0
06/12	311	1,134	4,553	16,596	0	0	14	517	745	8,633	0	0	325	1,651	5,298	25,229	0	0
06/13	62	1,196	1,328	17,924	0	0	8	525	568	9,201	0	0	70	1,721	1,896	27,125	0	0
06/14	2	1,198	63	17,987	0	0	17	542	780	9,981	0	0	19	1,740	843	27,968	0	0
06/15	37	1,235	1,068	19,055	0	0	47	589	895	10,876	0	0	84	1,824	1,963	29,931	0	0
06/16	49	1,284	1,471	20,526	0	0	29	618	691	11,567	0	0	78	1,902	2,162	32,093	0	0
06/17	93	1,377	2,142	22,668	0	0	33	651	1,025	12,592	0	0	126	2,028	3,167	35,260	0	0
06/18	170	1,547	3,044	25,712	0	0	7	658	503	13,095	0	0	177	2,205	3,547	38,807	0	0
06/19	146	1,693	2,967	28,679	0	0	29	687	674	13,769	4	4	175	2,380	3,641	42,448	4	4
06/20	97	1,790	1,564	30,243	0	0	30	717	895	14,664	0	4	127	2,507	2,459	44,907	0	4
06/21	42	1,832	1,353	31,596	0	0	35	752	671	15,335	0	4	77	2,584	2,024	46,931	0	4
06/22	27	1,859	1,095	32,691	0	0	12	764	719	16,054	0	4	39	2,623	1,814	48,745	0	4
06/23	31	1,890	1,309	34,000	0	0	6	770	500	16,554	0	4	37	2,660	1,809	50,554	0	4
06/24	51	1,941	1,895	35,895	0	0	7	777	404	16,958	0	4	58	2,718	2,299	52,853	0	4
06/25	112	2,053	2,893	38,788	0	0	32	809	1,033	17,991	0	4	144	2,862	3,926	56,779	0	4
06/26	83	2,136	2,215	41,003	0	0	29	838	887	18,878	0	4	112	2,974	3,102	59,881	0	4
06/27	30	2,166	1,599	42,602	0	0	15	853	669	19,547	0	4	45	3,019	2,268	62,149	0	4
06/28	27	2,193	984	43,586	0	0	17	870	425	19,972	0	4	44	3,063	1,409	63,558	0	4
06/29	30	2,223	1,414	45,000	0	0	9	879	383	20,355	0	4	39	3,102	1,797	65,355	0	4
06/30	44	2,267	1,217	46,217	0	0	68	947	1,401	21,756	0	4	112	3,214	2,618	67,973	0	4

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Appendix B.1. (Page 2 of 4).

Date	Personal – Use Catch						Subsistence Catch						Combined Catches					
	Chinook		Sockeye		Coho		Chinook		Sockeye		Coho		Chinook		Sockeye		Coho	
	Daily	Cum.	Daily	Cum.	Daily	Cum.	Daily	Cum.	Daily	Cum.	Daily	Cum.	Daily	Cum.	Daily	Cum.	Daily	Cum.
07/01	33	2,300	1,274	47,491	0	0	21	968	550	22,306	0	4	54	3,268	1,824	69,797	0	4
07/02	34	2,334	895	48,386	0	0	8	976	664	22,970	0	4	42	3,310	1,559	71,356	0	4
07/03	43	2,377	979	49,365	0	0	22	998	500	23,470	0	4	65	3,375	1,479	72,835	0	4
07/04	32	2,409	1,083	50,448	0	0	16	1,014	691	24,161	0	4	48	3,423	1,774	74,609	0	4
07/05	16	2,425	839	51,287	0	0	32	1,046	1,204	25,365	0	4	48	3,471	2,043	76,652	0	4
07/06	12	2,437	691	51,978	0	0	5	1,051	537	25,902	0	4	17	3,488	1,228	77,880	0	4
07/07	25	2,462	1,326	53,304	0	0	11	1,062	813	26,715	0	4	36	3,524	2,139	80,019	0	4
07/08	13	2,475	954	54,258	0	0	10	1,072	489	27,204	0	4	23	3,547	1,443	81,462	0	4
07/09	16	2,491	778	55,036	0	0	11	1,083	351	27,555	0	4	27	3,574	1,129	82,591	0	4
07/10	33	2,524	1,134	56,170	0	0	17	1,100	1,250	28,805	0	4	50	3,624	2,384	84,975	0	4
07/11	9	2,533	837	57,007	0	0	8	1,108	426	29,231	0	4	17	3,641	1,263	86,238	0	4
07/12	7	2,540	360	57,367	0	0	7	1,115	562	29,793	0	4	14	3,655	922	87,160	0	4
07/13	4	2,544	207	57,574	0	0	0	1,115	405	30,198	0	4	4	3,659	612	87,772	0	4
07/14	6	2,550	430	58,004	0	0	12	1,127	454	30,652	0	4	18	3,677	884	88,656	0	4
07/15	7	2,557	258	58,262	0	0	12	1,139	656	31,308	0	4	19	3,696	914	89,570	0	4
07/16	16	2,573	172	58,434	0	0	8	1,147	187	31,495	0	4	24	3,720	359	89,929	0	4
07/17	8	2,581	199	58,633	0	0	23	1,170	371	31,866	0	4	31	3,751	570	90,499	0	4
07/18	2	2,583	103	58,736	0	0	3	1,173	182	32,048	0	4	5	3,756	285	90,784	0	4
07/19	7	2,590	159	58,895	0	0	5	1,178	382	32,430	0	4	12	3,768	541	91,325	0	4
07/20	2	2,592	239	59,134	1	1	41	1,219	629	33,059	0	4	43	3,811	868	92,193	1	5
07/21	3	2,595	124	59,258	0	1	9	1,228	263	33,322	0	4	12	3,823	387	92,580	0	5
07/22	3	2,598	321	59,579	3	4	3	1,231	262	33,584	0	4	6	3,829	583	93,163	3	8
07/23	14	2,612	688	60,267	1	5	8	1,239	330	33,914	0	4	22	3,851	1,018	94,181	1	9
07/24	16	2,628	822	61,089	1	6	4	1,243	275	34,189	0	4	20	3,871	1,097	95,278	1	10
07/25	14	2,642	891	61,980	0	6	10	1,253	398	34,587	0	4	24	3,895	1,289	96,567	0	10
07/26	0	2,642	343	62,323	6	12	3	1,256	179	34,766	0	4	3	3,898	522	97,089	6	16
07/27	3	2,645	345	62,668	0	12	3	1,259	161	34,927	0	4	6	3,904	506	97,595	0	16
07/28	3	2,648	475	63,143	9	21	11	1,270	195	35,122	0	4	14	3,918	670	98,265	9	25
07/29	6	2,654	1,034	64,177	0	21	3	1,273	158	35,280	0	4	9	3,927	1,192	99,457	0	25
07/30	12	2,666	782	64,959	0	21	5	1,278	658	35,938	0	4	17	3,944	1,440	100,897	0	25
07/31	11	2,677	1,454	66,413	23	44	2	1,280	408	36,346	0	4	13	3,957	1,862	102,759	23	48

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Appendix B.1. (Page 3 of 4).

Date	Personal-Use Catch						Subsistence Catch						Combined Catches					
	Chinook		Sockeye		Coho		Chinook		Sockeye		Coho		Chinook		Sockeye		Coho	
	Daily	Cum.	Daily	Cum.	Daily	Cum.	Daily	Cum.	Daily	Cum.	Daily	Cum.	Daily	Cum.	Daily	Cum.	Daily	Cum.
08/01	1	2,678	1,155	67,568	18	62	2	1,282	225	36,571	15	19	3	3,960	1,380	104,139	33	81
08/02	0	2,678	607	68,175	0	62	0	1,282	145	36,716	0	19	0	3,960	752	104,891	0	81
08/03	1	2,679	608	68,783	6	68	0	1,282	241	36,957	0	19	1	3,961	849	105,740	6	87
08/04	1	2,680	716	69,499	0	68	0	1,282	589	37,546	0	19	1	3,962	1,305	107,045	0	87
08/05	0	2,680	789	70,288	37	105	0	1,282	438	37,984	0	19	0	3,962	1,227	108,272	37	124
08/06	3	2,683	1,661	71,949	12	117	0	1,282	366	38,350	3	22	3	3,965	2,027	110,299	15	139
08/07	7	2,690	2,099	74,048	13	130	3	1,285	803	39,153	0	22	10	3,975	2,902	113,201	13	152
08/08	3	2,693	1,291	75,339	14	144	7	1,292	214	39,367	0	22	10	3,985	1,505	114,706	14	166
08/09	0	2,693	741	76,080	18	162	1	1,293	404	39,771	0	22	1	3,986	1,145	115,851	18	184
08/10	0	2,693	563	76,643	0	162	0	1,293	831	40,602	6	28	0	3,986	1,394	117,245	6	190
08/11	0	2,693	1,019	77,662	6	168	2	1,295	414	41,016	0	28	2	3,988	1,433	118,678	6	196
08/12	2	2,695	722	78,384	0	168	1	1,296	333	41,349	0	28	3	3,991	1,055	119,733	0	196
08/13	4	2,699	1,917	80,301	2	170	0	1,296	482	41,831	0	28	4	3,995	2,399	122,132	2	198
08/14	3	2,702	2,683	82,984	2	172	1	1,297	1,060	42,891	0	28	4	3,999	3,743	125,875	2	200
08/15	0	2,702	835	83,819	1	173	0	1,297	764	43,655	0	28	0	3,999	1,599	127,474	1	201
08/16	0	2,702	315	84,134	2	175	0	1,297	570	44,225	0	28	0	3,999	885	128,359	2	203
08/17	0	2,702	427	84,561	13	188	0	1,297	461	44,686	0	28	0	3,999	888	129,247	13	216
08/18	0	2,702	280	84,841	14	202	0	1,297	623	45,309	10	38	0	3,999	903	130,150	24	240
08/19	0	2,702	526	85,367	0	202	0	1,297	359	45,668	0	38	0	3,999	885	131,035	0	240
08/20	2	2,704	810	86,177	13	215	3	1,300	118	45,786	0	38	5	4,004	928	131,963	13	253
08/21	5	2,709	931	87,108	42	257	3	1,303	501	46,287	0	38	8	4,012	1,432	133,395	42	295
08/22	1	2,710	523	87,631	19	276	0	1,303	75	46,362	0	38	1	4,013	598	133,993	19	314
08/23	0	2,710	154	87,785	5	281	2	1,305	214	46,576	0	38	2	4,015	368	134,361	5	319
08/24	1	2,711	143	87,928	5	286	0	1,305	124	46,700	0	38	1	4,016	267	134,628	5	324
08/25	5	2,716	91	88,019	8	294	0	1,305	77	46,777	0	38	5	4,021	168	134,796	8	332
08/26	0	2,716	156	88,175	38	332	0	1,305	165	46,942	0	38	0	4,021	321	135,117	38	370
08/27	0	2,716	293	88,468	46	378	0	1,305	73	47,015	0	38	0	4,021	366	135,483	46	416
08/28	7	2,723	239	88,707	46	424	2	1,307	167	47,182	1	39	9	4,030	406	135,889	47	463
08/29	1	2,724	158	88,865	56	480	0	1,307	178	47,360	0	39	1	4,031	336	136,225	56	519
08/30	0	2,724	20	88,885	6	486	0	1,307	640	48,000	0	39	0	4,031	660	136,885	6	525
08/31	0	2,724	5	88,890	5	491	0	1,307	30	48,030	0	39	0	4,031	35	136,920	5	530

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Appendix B.1. (Page 4 of 4).

Date	Personal–Use Catch						Subsistence Catch						Combined Catches					
	Chinook		Sockeye		Coho		Chinook		Sockeye		Coho		Chinook		Sockeye		Coho	
	Daily	Cum.	Daily	Cum.	Daily	Cum.	Daily	Cum.	Daily	Cum.	Daily	Cum.	Daily	Cum.	Daily	Cum.	Daily	Cum.
09/01	0	2,724	0	88,890	0	491	0	1,307	62	48,092	8	47	0	4,031	62	136,982	8	538
09/02	0	2,724	4	88,894	2	493	0	1,307	94	48,186	0	47	0	4,031	98	137,080	2	540
09/03	0	2,724	3	88,897	0	493	0	1,307	0	48,186	0	47	0	4,031	3	137,083	0	540
09/04	0	2,724	119	89,016	46	539	0	1,307	62	48,248	0	47	0	4,031	181	137,264	46	586
09/05	1	2,725	149	89,165	80	619	1	1,308	49	48,297	0	47	2	4,033	198	137,462	80	666
09/06	2	2,727	47	89,212	24	643	0	1,308	17	48,314	0	47	2	4,035	64	137,526	24	690
09/07	0	2,727	10	89,222	9	652	0	1,308	44	48,358	0	47	0	4,035	54	137,580	9	699
09/08	0	2,727	8	89,230	18	670	0	1,308	7	48,365	0	47	0	4,035	15	137,595	18	717
09/09	0	2,727	35	89,265	43	713	0	1,308	13	48,378	0	47	0	4,035	48	137,643	43	760
09/10	0	2,727	58	89,323	50	763	0	1,308	25	48,403	0	47	0	4,035	83	137,726	50	810
09/11	0	2,727	44	89,367	91	854	0	1,308	86	48,489	4	51	0	4,035	130	137,856	95	905
09/12	0	2,727	24	89,391	25	879	0	1,308	16	48,505	0	51	0	4,035	40	137,896	25	930
09/13	0	2,727	23	89,414	40	919	0	1,308	0	48,505	0	51	0	4,035	23	137,919	40	970
09/14	0	2,727	12	89,426	15	934	0	1,308	0	48,505	0	51	0	4,035	12	137,931	15	985
09/15	0	2,727	16	89,442	24	958	0	1,308	0	48,505	0	51	0	4,035	16	137,947	24	1,009
09/16	0	2,727	17	89,459	40	998	0	1,308	0	48,505	0	51	0	4,035	17	137,964	40	1,049
09/17	0	2,727	10	89,469	28	1,026	0	1,308	7	48,512	0	51	0	4,035	17	137,981	28	1,077
09/18	0	2,727	113	89,582	175	1,201	0	1,308	0	48,512	0	51	0	4,035	113	138,094	175	1,252
09/19	0	2,727	20	89,602	27	1,228	0	1,308	2	48,514	2	53	0	4,035	22	138,116	29	1,281
09/20	0	2,727	0	89,602	0	1,228	0	1,308	0	48,514	0	53	0	4,035	0	138,116	0	1,281
09/21	2	2,729	3	89,605	0	1,228	0	1,308	0	48,514	0	53	2	4,037	3	138,119	0	1,281
09/22	0	2,729	3	89,608	4	1,232	0	1,308	0	48,514	0	53	0	4,037	3	138,122	4	1,285
09/23	0	2,729	0	89,608	1	1,233	0	1,308	0	48,514	0	53	0	4,037	0	138,122	1	1,286
09/24	0	2,729	0	89,608	68	1,301	0	1,308	10	48,524	7	60	0	4,037	10	138,132	75	1,361
09/25	0	2,729	19	89,627	44	1,345	0	1,308	39	48,563	10	70	0	4,037	58	138,190	54	1,415
09/26	0	2,729	0	89,627	9	1,354	0	1,308	19	48,582	0	70	0	4,037	19	138,209	9	1,424
09/27	0	2,729	2	89,629	4	1,358	0	1,308	0	48,582	0	70	0	4,037	2	138,211	4	1,428
09/28	0	2,729	0	89,629	0	1,358	0	1,308	0	48,582	0	70	0	4,037	0	138,211	0	1,428
09/29	0	2,729	0	89,629	0	1,358	0	1,308	0	48,582	0	70	0	4,037	0	138,211	0	1,428
09/30	0	2,729	0	89,629	0	1,358	0	1,308	0	48,582	0	70	0	4,037	0	138,211	0	1,428
Total		2,729		89,629		1,358		1,308		48,582		70		4,037		138,211		1,428

Appendix B.2. Estimated age and sex composition of chinook salmon personal–use and subsistence harvests in the upper Copper River area, 1993.

		Brood Year and Age Group					Total
		1989	1988	1987		1986	
		1.2	1.3	1.4	2.3	2.4	
Stratum dates: 06/01 – 07/24							
Sampling dates: 06/04 – 07/24							
Sample size: 57							
Female	Percent of sample	5.3	31.6	14.0	3.5	5.3	59.6
	Number in catch	212	1,275	567	142	212	2,408
Male	Percent of sample	5.3	19.3	14.0	1.8	0.0	40.4
	Number in catch	212	779	567	71	0	1,629
Total	Percent of sample	10.5	50.9	28.1	5.3	5.3	100.0
	Number in catch	425	2,054	1,133	212	212	4,037
	Standard error	166	270	242	120	120	

Appendix B.3 Temporally stratified age and sex composition of sockeye salmon harvested in upper Copper River personal-use and subsistence fisheries, 1993.

		Brood Year and Age Group									
		1990		1989		1988			1987		
		0.2	1.1	0.3	1.2	0.4	1.3	2.2	1.4	2.3	Total
Stratum dates:	06/01 - 06/16										
Sampling dates:	06/04 - 06/13										
Sample size:	419										
Female	Percent of sample	1.0	0.0	10.3	7.9	0.2	29.6	3.6	0.5	7.6	60.6
	Number in catch	306	0	3,294	2,528	77	9,498	1,149	153	2,451	19,455
Male	Percent of sample	0.0	0.2	8.8	1.7	0.0	23.4	1.0	0.0	4.3	39.4
	Number in catch	0	77	2,834	536	0	7,506	306	0	1,379	12,638
Total	Percent of sample	1.0	0.2	19.1	9.5	0.2	53.0	4.5	0.5	11.9	100.0
	Number in catch	306	77	6,128	3,064	77	17,004	1,455	153	3,830	32,093
	Standard error	153	77	617	461	77	783	327	108	509	
Stratum dates:	06/17 - 06/30										
Sampling dates:	06/18 - 06/26										
Sample size:	579										
Female	Percent of sample	0.5	0.0	3.1	8.6	0.0	41.8	0.5	0.2	6.2	61.0
	Number in catch	186	0	1,115	3,098	0	14,996	186	62	2,231	21,875
Male	Percent of sample	0.7	0.0	4.0	2.6	0.0	28.8	0.5	0.5	1.9	39.0
	Number in catch	248	0	1,425	930	0	10,349	186	186	682	14,005
Total	Percent of sample	1.2	0.0	7.1	11.2	0.0	70.6	1.0	0.7	8.1	100.0
	Number in catch	434	0	2,541	4,028	0	25,345	372	248	2,913	35,880
	Standard error	163	0	383	471	0	680	151	124	408	
Stratum dates:	07/01 - 07/21										
Sampling dates:	07/02 - 07/18										
Sample size:	454										
Female	Percent of sample	0.4	0.0	4.2	7.9	0.0	46.7	0.0	0.0	1.1	60.4
	Number in catch	108	0	1,030	1,951	0	11,490	0	0	271	14,851
Male	Percent of sample	0.2	0.0	3.5	2.6	0.0	32.2	0.2	0.0	0.9	39.6
	Number in catch	54	0	867	650	0	7,913	54	0	217	9,756
Total	Percent of sample	0.7	0.0	7.7	10.6	0.0	78.9	0.2	0.0	2.0	100.0
	Number in catch	163	0	1,897	2,602	0	19,404	54	0	488	24,607
	Standard error	94	0	308	355	0	472	54	0	161	
Stratum dates:	07/22 - 08/04										
Sampling dates:	07/23 - 07/31										
Sample size:	543										
Female	Percent of sample	0.2	0.0	2.8	2.9	0.0	49.9	0.2	0.0	2.4	58.4
	Number in catch	27	0	400	426	0	7,219	27	0	346	8,445
Male	Percent of sample	0.2	0.0	2.2	2.8	0.0	35.2	0.0	0.0	1.3	41.6
	Number in catch	27	0	320	400	0	5,088	0	0	186	6,020
Total	Percent of sample	0.4	0.0	5.0	5.7	0.0	85.1	0.2	0.0	3.7	100.0
	Number in catch	53	0	719	826	0	12,307	27	0	533	14,465
	Standard error	38	0	135	144	0	221	27	0	117	

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		Brood Year and Age Group									Total
		1990		1989		1988			1987		
		0.2	1.1	0.3	1.2	0.4	1.3	2.2	1.4	2.3	
Stratum dates: 08/05 – 09/30											
Sampling dates: 08/06 – 08/14											
Sample size: 564											
Female	Percent of sample	0.0	0.0	0.2	4.8	0.0	58.7	0.2	0.2	1.8	65.8
	Number in catch	0	0	55	1,492	0	18,291	55	55	553	20,501
Male	Percent of sample	0.0	0.0	0.2	1.8	0.0	31.7	0.0	0.0	0.5	34.2
	Number in catch	0	0	55	553	0	9,891	0	0	166	10,665
Total	Percent of sample	0.0	0.0	0.4	6.6	0.0	90.4	0.2	0.2	2.3	100.0
	Number in catch	0	0	111	2,045	0	28,182	55	55	718	31,166
	Standard error	0	0	78	325	0	386	55	55	197	
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Strata Combined: 06/01 – 09/30											
Sampling dates: 06/04 – 08/14											
Sample size: 2,559											
Female	Percent of sample	0.5	0.0	4.3	6.9	0.1	44.5	1.0	0.2	4.2	61.6
	Number in catch	627	0	5,894	9,495	77	61,495	1,417	270	5,852	85,127
Male	Percent of sample	0.2	0.1	4.0	2.2	0.0	29.5	0.4	0.1	1.9	38.4
	Number in catch	329	77	5,501	3,068	0	40,748	546	186	2,629	53,084
Total	Percent of sample	0.7	0.1	8.2	9.1	0.1	74.0	1.4	0.3	6.1	100.0
	Number in catch	956	77	11,395	12,564	77	102,242	1,963	456	8,481	138,211
	Standard error	245	77	804	829	77	1,224	369	173	710	

**Appendix C**  
**Salmon Escapements to Coastal Streams**  
**of the Copper River Delta and the Bering River**

Appendix C.1. Aerial escapement indices for sockeye salmon returning to the Copper River delta and the Bering River, by date and location, 1993.

Copper River Delta <sup>a</sup>		Aerial Escapement Indices by Survey Date						
System and Drainage	Survey System	31 May	4 June	10 June	15 June	22 June	29 June	7 July
Eyak River	Eyak River	200 +	NC	NC	NS	NS	NS	NS
	West Shore Beaches	150	120	270	200	600	1,600	6,300
	East Shore Beaches	0	0	210	1,300	150	1,100	2,800
	Middle Arm Beaches <sup>b</sup>	1,030	1,400 *	1,370	1,460	1,700	1,360	900
	North Shore Beaches	NS	NS	0	2,500	3,800	2,900	200
	Hatchery Creek Delta	NS	NS	0	300	350	350	700
	Hatchery Creek	NS	NS	0	0	0	300	275
	Power Creek Delta	NS	NS	0	0	300	600	200
	Power Creek	NS	NS	NS	NS	NS	NS	NS
Ibek Creek	Ibek Creek	NS	NS	NS	NS	NS	NS	NS
Alaganik Slough	Alaganik Slough	0	NC	NS	NS	NS	NS	NS
	McKinley Lake	0	0	0	0	0	1,400	2,200
	Salmon Creek West Fork	NS	NS	NS	NS	0	0	0
	Salmon Creek East Fork	NS	NS	NS	NS	NS	NS	20
26/27 Mile Creek	26/27 Mile Creek	0	0	0	150	200	600	900
39 Mile Creek	39 Mile Creek	NS	NS	0	0	0	0	1
Goat Mountain Creek	Goat Mountain Creek	NS	NS	NC	NC	NC	NC	0
Pleasant Creek	Pleasant Creek <sup>b</sup>	NS	NS	64	250	770	1,520 <sup>c</sup>	1,600
Martin River	Martin River -- Lower	745	725	465	1,250	680	495	250
	Ragged Point River	NS	NS	NS	NS	NS	0	450
	Ragged Point Lake Outlet	NS	NS	NS	NS	NS	NS	0
	Ragged Point Lake	NS	NS	NS	NS	NS	NS	0
	Martin River -- Upper <sup>b</sup>	0	250	200	250	1,300	880	300
	Martin Lake Outlet	0	100	100	650	100	420	0
	Martin Lake	0	650	800	3,700	3,800	5,200	4,000
	Martin Lake Feeders	NS	NS	0	0	0	200	680
	Pothole River	NS	NS	NS	NS	NS	85	240
	Pothole Lake	NS	NS	NS	NS	NS	0	0
	Little Martin Lake Outlet	NS	NS	NS	NS	NS	NS	NS
	Little Martin Lake	NS	NS	NS	NS	NS	NS	NS
	Tokun Springs	NS	200	150	1,200 *	600	920	1,600
	Tokun River	NS	250	100	300 *	400	100	170
	Tokun Lake Outlet	NS	0	0	400 *	150	0	0
	Tokun Lake	NS	150	200	1,500 *	1,300	1,200	1,150
Martin River Slough	Martin River Slough	0	0	140	350	3,400	3,000	5,400 *
Copper River Aerial Survey Daily Total		2,125	3,845	4,069	15,760	19,600	24,230	30,336

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Copper River Delta <sup>a</sup>		Aerial Escapement Indices by Survey Date						
System and Drainage	Survey System	13 July	20 July	29 July	4 August	10 August	24 August	28 August
Eyak River	Eyak River	NS	NS	NS	0 *	50	NC	NC
	West Shore Beaches	2,800	2,600	2,900	2,500 *	1,100	NC	1,300
	East Shore Beaches	460	750	1,400	2,200 *	2,260	NC	NC
	Middle Arm Beaches <sup>b</sup>	1,850	2,800	3,000	3,300 *	4,000	5,000	6,000
	North Shore Beaches	NC	7,500	7,000	7,000 *	6,500	NC	1,620
	Hatchery Creek Delta	NC	600	NC	1,000 *	500	700	900
	Hatchery Creek	NC	130	NC	100 *	60	800	1,200
	Power Creek Delta	NC	NC	NC	700 *	NC	NC	3,000
	Power Creek	NS	NS	NS	NS	NS	NS	350
Ibek Creek	Ibek Creek	NS	NS	NS	NC	NS	NC	NC
Alaganik Slough	Alaganik Slough	NS	NS	NS	NS	NS	NC	NC
	McKinley Lake	7,000	10,200	7,700 *	6,300	4,300	800	800
	Salmon Creek West Fork	250	400	3,000 *	2,700	4,500	4,700	5,000
	Salmon Creek East Fork	0	0	0 *	100	1,100	600	1,100
26/27 Mile Creek	26/27 Mile Creek	1,625 *	1,000	1,300	1,050	1,000	900	500
39 Mile Creek	39 Mile Creek	1,000	3,000	3,050	3,700	4,000 *	3,040	4,000
Goat Mountain Creek	Goat Mountain Creek	NC	NC	NC	NC	NC	NC	NC
Pleasant Creek	Pleasant Creek <sup>b</sup>	1,850 *	NS	NS	NS	NS	NS	NS
Martin River	Martin River – Lower	230	425	350	300	400 *	80	0
	Ragged Point River	1,030	300	750	400	775 *	600	600
	Ragged Point Lake Outlet	10	50	200	200	100 *	300	300
	Ragged Point Lake	20	400	200	300	450 *	1,300	1,200
	Martin River – Upper <sup>b</sup>	575	1,100	850	620	1,100 *	300	450
	Martin Lake Outlet	1,100	300	300	400	500 *	20	200
	Martin Lake	3,000	1,800	1,300	450	3,700 *	40	400
	Martin Lake Feeders	2,875	3,000	3,600	2,200	2,500 *	0	0
	Pothole River	425	600	50	100	700 *	120	0
	Pothole Lake	0	100	300	100	0 *	150	200
	Little Martin Lake Outlet	10	0	0	50	25	0	0
	Little Martin Lake	800	1,100	1,900 *	1,300	1,000	1,500	1,300
	Tokun Springs	1,600	600	300	600	NC	400	100
	Tokun River	365	125	550	325	175	20	100
	Tokun Lake Outlet	0	0	0	0	0	0	0
	Tokun Lake	1,200	1,400	2,350	2,000	1,700	1,600	2,020
Martin River Slough	Martin River Slough	2,800	2,735	1,550	1,220	900	450	125
Copper River Aerial Survey Daily Total		32,875	43,015	43,900	41,215	43,395	23,420	32,765

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Copper River Delta <sup>a</sup> System and Drainage	Survey System	Aerial Escapement Indices by Survey Date				Estimated Escapement	
		4 Sept.	9 Sept.	13 Sept.	24 Sept.	Site <sup>c</sup>	System <sup>d</sup>
Eyak River	Eyak River	NS	NS	NS	NS	0	18,200
	West Shore Beaches	NS	NS	NC	NC	2,500	
	East Shore Beaches	NS	NC	NC	NC	2,200	
	Middle Arm Beaches <sup>b</sup>	NS	NS	3,500	1,600	4,700	
	North Shore Beaches	NS	NS	NC	NC	7,000	
	Hatchery Creek Delta	NS	NC	200	0	1,000	
	Hatchery Creek	NS	NC	200	300	100	
	Power Creek Delta	NS	NC	200	0	700	
	Power Creek	NS	NC	500	400	NS	
Ibek Creek	Ibek Creek	NC	NC	NC	NC		
Alaganik Slough	Alaganik Slough	NS	NS	0	NC		10,700
	McKinley Lake	NS	1,000	800	800	7,700	
	Salmon Creek West Fork	NS	2,200	1,800	700	3,000	
	Salmon Creek East Fork	NS	200	110	75	0	
26/27 Mile Creek	26/27 Mile Creek	550	450	400	200	1,625	1,625
39 Mile Creek	39 Mile Creek	1,800	2,000	1,100	400	4,000	4,000
Goat Mountain Creek	Goat Mountain Creek	NC	NC	NC	0	NC	NC
Pleasant Creek	Pleasant Creek <sup>b</sup>	NS	NS	NS	NS	2,270	2,270
Martin River	Martin River – Lower	0	0	0	NS	400	12,125
	Ragged Point River	600	500	100	150	775	
	Ragged Point Lake Outlet	600	100	200	100	100	
	Ragged Point Lake	1,100	1,260	1,000	900	450	
	Martin River – Upper <sup>b</sup>	450	600	600	NC	1,100	
	Martin Lake Outlet	0	NC	50	NC	500	
	Martin Lake	0	475	660	NC	3,700	
	Martin Lake Feeders	NS	0	0	NS	2,500	
	Pothole River	30	NC	100	NC	700	
	Pothole Lake	300	600	2,140	NC	0	
	Little Martin Lake Outlet	0	0	100	0	0	
	Little Martin Lake	400	520	600	NC	1,900	
	Tokun Springs	0	40	200	50	1,200	3,400
	Tokun River	200	200	70	50	300	
	Tokun Lake Outlet	30	0	0	0	400	
	Tokun Lake	1,900	1,140	1,400	500	1,500	
Martin River Slough	Martin River Slough	0	0	0	50	5,400	5,400
Copper River Aerial Survey Daily Total		7,960	11,285	16,030	6,275		57,720

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Bering River Delta <sup>a</sup>		Aerial Escapement Indices by Survey Date						
System and Drainage	Survey System	31 May	4 June	10 June	15 June	22 June	29 June	4 July
Bering River	Bering River	500	350	800	700	2,500	500	360
	Bering Lake	0	700	0	3,800	4,800	8,200	19,000
	Dick Creek	NS	0	0	0	0	0	800
	Shepherd Creek - Lagoon	NS	NS	0	0	1,000	500 +	200
	Shepherd Creek	NS	NS	NS	NS	NS	NC	NS
	Carbon Creek	NS	NS	NS	NS	NS	NC	NS
	Maxwell Creek	NS	NS	NS	NS	NS	NS	NS
	Trout Creek	NS	NS	NS	NS	NS	NS	NS
	Clear Creek	NS	NS	NS	NS	NS	NS	NS
	Kushtaka Lake	NS	NS	NS	NS	NS	NS	NS
	Shockum Creek	NS	NS	NS	NS	NS	NS	NS
Katalla River	Katalla River	0	NS	70	30	120	200	200
Bering River Aerial Survey Daily Total		500	1,050	870	4,530	8,420	9,400	20,560

Bering River Delta <sup>a</sup>		Aerial Escapement Indices by Survey Date						
System and Drainage	Survey System	13 July	20 July	29 July	4 August	10 August	24 August	28 August
Bering River	Bering River	25	400 *	30	100	20	200	0
	Bering Lake	17,750	17,620 *	2,200	3,100	3,175	640	500
	Dick Creek	1,525	5,100 *	11,700	11,680	11,400	1,920	3,500
	Shepherd Creek - Lagoon	0	500	0	NS	NC	NS	NS
	Shepherd Creek	NS	1,200	3,000 *	NS	NS	NS	NS
	Carbon Creek	NS	NS	100 *	NS	NS	NS	NS
	Maxwell Creek	NS	NS	NS	NS	NS	NS	NS
	Trout Creek	0	NS	NS	NS	0	NS	NS
	Clear Creek	500	800	600	800	500 *	NS	NS
	Kushtaka Lake	0	0	0	30	105 *	NS	NS
	Shockum Creek	0	0	0	30	100 *	NS	NS
Katalla River	Katalla River	800 *	650	250	200	100	650	300
Bering River Aerial Survey Daily Total		20,600	26,270	17,880	15,940	15,400	3,410	4,300

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Bering River Delta <sup>a</sup> System and Drainage	Survey System	Aerial Escapement Indices by Survey Date				Estimated Escapement	
		4 Sept	9 Sept	13 Sept	24 Sept	Site <sup>b</sup>	System <sup>c</sup>
Bering River	Bering River	NC	50	0	220	400	23,120
	Bering Lake	280	320	370	200	17,620	
	Dick Creek	NS	1,800	700	750	5,100	
	Shepherd Creek - Lagoon	NC	0	0	NS		3,100
	Shepherd Creek	NC	NS	NS	NS	3,000	
	Carbon Creek	450	NS	NS	NS	100	
	Maxwell Creek	NS	NS	NS	NS		
	Trout Creek	NS	NS	NS	NS		
	Clear Creek	NS	NS	NS	NS	500	500
	Kushtaka Lake	NS	NS	NS	NS	105	205
	Shockum Creek	NS	NS	NS	NS	100	
Katalla River	Katalla River	NS	0	0	0	800	800
Bering River Aerial Survey Total		730	2,170	1,070	1,170		27,725
Copper River Aerial Survey Total							57,720
Copper and Bering River Aerial Survey Combined Total							85,445

<sup>a</sup> The survey sites represent most of the known sockeye salmon spawning locations in the Copper River Delta and Bering River drainages. Weather permitting, the sites are surveyed weekly. The surveys provide information about the relative strength of escapement among years and within a year, time for spawning sites and relative escapement strength among sites. The indices are not intended to provide an actual estimate of escapement for coastal stocks but they have been used for that purpose in the absence of any other escapement estimating method. The abbreviations used in the following table have the following meaning: NS = no survey, NC = surveyed but no count due to poor conditions, SP = possible species confusion. The + sign after some counts indicates that the count is the minimum estimate of seen in less than ideal conditions. The symbol \* indicates that this survey count was used as the peak survey for the site without duplication of counts for survey sites along migratory corridors (see footnote b).

<sup>b</sup> The sites typically have very protracted run timing or two temporally segregated spawning populations at the same sites. Aerial counts from more than one day may be astericked and used in the escapement estimate if the surveyor indicates that these counts represented different fish.

<sup>c</sup> The escapement estimates for each site are in the astericked survey estimate. Where the survey site is a terminal spawning area the peak count is used; however, if the site is a schooling area for migratory fish bound for sites further upstream the count which minimizes possible duplication of counts across dates is selected.

<sup>d</sup> The sum of the estimates by site within a system.

<sup>e</sup> A peak count of 420 sockeye were observed in Pleasant Creek 2 on 29 June.

Appendix C.2. Aerial escapement indices for coho salmon returning to the Copper River delta and Bering River, by date and location, 1993.

Copper River Delta <sup>a</sup>		Aerial Escapement Indices by Survey Date <sup>b</sup>							
System and Drainage	Survey System	4 Aug.	10 Aug.	24 Aug.	28 Aug.	4 Sept.	9 Sept.	13 Sept.	24 Sept.
Eyak River	Eyak River	100	50	NC	NC	NS	NS	NS	NS
	East Shore Beaches	0	0	NC	NC	NS	NS	NC	NC
	West Shore Beaches	0	0	NC	0	NS	NS	NC	NC
	Middle Arm Beaches	0	0	0	0	NS	NS	0	0
	North Shore Beaches	0	0	NC	0	NS	NS	NC	NC
	Hatchery Creek Delta	0	0	0	0	NS	NS	NC	0
	Hatchery Creek	0	0	0	0	NS	NS	NC	500
	Power Creek Delta	0	0	NC	0	NS	NS	NC	600
	Power Creek	0	0	NS	0	NS	NS	NC	800
Ibek Creek	Ibek Creek	NC	NS	NC	NC	NC	NC	NC	NC
Scott River	Scott River	NS	NS	0	0	NS	NC	80 *	350
	Elsner Lake	NS	NS	0	0	NS	0	0 *	0
	Scott Lake	NS	NS	0	0	NS	1,200	1,500 *	400
Alaganik Slough	Alaganik Slough	NS	NS	NC	NC	NS	300 +	150	NC
	18/20 Mile Creek	NS	NC	10	130	360	875	1,750 *	1,550
	McKinley Lake	0	0	0	0	NS	NC	450	700 *
	Salmon Creek West Fork	0	0	0	0	NS	0	200	400 *
	Salmon Creek East Fork	0	0	0	0	NS	0	60	1,000 *
26/27 Mile Creek	26/27 Mile Creek	0	0	0	0	130	300	500	1,500 *
39 Mile Creek	39 Mile Creek	0	0	0	0	600	1,400	1,500	1,600 *
Goat Mountain Cr.	Goat Mountain Creek	NC	NC	0	0	50	220	220	650 *
Pleasant Creek	Pleasant Creek	NS	NS	NS	NS	NS	NS	NS	NS
Martin River	Martin River - Lower	0	120	110	785	700	2,200	1,040 *	NS
	Ragged Point River	0	0	0	0	75	100	150	100
	Ragged Point Lake Outlet	0	0	0	0	0	0	0	0
	Ragged Point Lake	0	0	0	0	0	0	0	0
	Martin River - Upper	150	150	150	630	1,900	2,700	3,500 *	NC
	Martin Lake Outlet	0	0	0	0	150	0	0	NC
	Martin Lake	0	0	0	0	0	NC	NC	NC
	Martin Lake Feeders	0	0	0	0	0	0	0	NS
	Pothole River	0	20	0	80	0	NC	50	NC
	Pothole Lake Outlet	0	0	0	0	0	NC	NC	NC
	Pothole Lake	0	0	0	0	0	0	0	0
	Little Martin River	0	0	550	350	1,300	2,700	3,900	6,100 *
	Little Martin Lake	0	0	0	300	300	300	200	NC
	Tokun Springs	0	NC	0	40	20	200	100	550 *
	Tokun River	0	25	0	60	200	130	60	400 *
	Tokun Lake Outlet	0	0	0	0	0	0	0	0
	Tokun Lake	0	0	0	0	0	0	0	0
Martin River Slough	Martin River Slough	300	250	660	950	3,300	8,700	9,450	11,200 *
Copper River Aerial Survey Daily Total		450	565	1,480	3,325	9,085	21,325	24,860	28,400

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Copper River Delta <sup>a</sup>		Aerial Escapement Indices by Survey Date <sup>b</sup>		Estimated Escapement	
System and Drainage	Survey System	21 Oct	Site <sup>c</sup>	System <sup>d</sup>	
Eyak River	Eyak River	NS	NC	7,198	
	East Shore Beaches	NC			
	West Shore Beaches	NC			
	Middle Arm Beaches	NC			
	North Shore Beaches	NC			
	Hatchery Creek Delta	0			
	Hatchery Creek	210			
	Power Creek Delta	130			
	Power Creek	230			
Ibek Creek	Ibek Creek	1,720	NC	6,672	
Scott River	Scott River	NC	80		
	Elsner Lake	120	0		
	Scott Lake	NC	1,500		
Alaganik Slough	Alaganik Slough	100			
	18/20 Mile Creek	200	1,750	1,750	
	McKinley Lake	50	700	2,100	
	Salmon Creek West Fork	220	400		
	Salmon Creek East Fork	2,020	1,000		
26/27 Mile Creek	26/27 Mile Creek	550	1,500	1,500	
39 Mile Creek	39 Mile Creek	NC	1,600	1,600	
Goat Mountain Cr.	Goat Mountain Creek	NS	650	650	
Pleasant Creek	Pleasant Creek	NS			
Martin River	Martin River – Lower	10	1,040	4,540	
	Ragged Point River	200 *	300	300	
	Ragged Point Lake Outlet	20			
	Ragged Point Lake	100 *			
	Martin River – Upper	415	3,500		
	Martin Lake Outlet	20	150	150	
	Martin Lake	0			
	Martin Lake Feeders	70			
	Pothole River	130 *	730	730	
	Pothole Lake	600 *			
	Little Martin Lake Outlet	400	6,100	6,400	
	Little Martin Lake	0	300		
	Tokun Springs	450	550	950	
	Tokun River	250	400		
	Tokun Lake Outlet	0			
	Tokun Lake	0			
Martin River Slough	Martin River Slough	2,940	11,200	11,200	
Copper River Aerial Survey Total		11,155		45,740	

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Bering River Delta <sup>a</sup>		Aerial Escapement Indices by Survey Date						
System and Drainage	Survey System	4 Aug.	10 Aug.	24 Aug.	28 Aug.	4 Sept.	9 Sept.	13 Sept.
Bering River	Bering River <sup>*</sup>	100	50	1,000	1,000	2,540	3,650 *	3,000 +
	Bering Lake	0	0	200	260	450	2,250 *	2,070
	Dick Creek	0	0	0	400	NS	200 *	100
	Shepherd Creek – Lagoon	NS	NC	NS	NS	NC	600	400
	Shepherd Creek	NS	NS	NS	NS	NC	NS	NS
	Carbon Creek	NS	NS	NS	NS	0	NS	NS
Katalla River	Katalla River	150	150	350	500	NS	4,000	2,800
Lower Bering River	Gandil River	NS	NS	0	1	275	560	670
	Nichawak River	NS	NS	4	0	1,000	2,500	NC
Controller Bay	Campbell River	NS	NS	4	0	0	0	0
	Edwards River	NS	NS	0	250	1,000	2,500	1,000
	Okalee River	NS	NS	320	400	1,600	4,400	5,000
	Other Clear Streams	NS	NS	0	0	100	100	160
Bering River Aerial Survey Daily Index		250	200	1,878	2,811	6,965	20,760	15,200

Bering River Delta <sup>a</sup>		Aerial Escapement Indices by Survey Date		Estimated Escapement	
System and Drainage	Survey System	24 Sept	21 Oct	Site <sup>c</sup>	System <sup>d</sup>
Bering River	Bering River <sup>*</sup>	1,000	NS	3,650	6,100
	Bering Lake	4,100	560	2,250	
	Dick Creek	450	920	200	
	Shepherd Creek – Lagoon	NS	NS		
	Shepherd Creek	NS	NS		
	Carbon Creek	NS	NS		
	Maxwell Creek	NS	NS		
Katalla River	Katalla River	4400 *	340	4,400	4,400
Lower Bering River	Gandil River	1,250 *	NS	1,250	5,350
	Nichawak River	4,100 *	NS	4,100	
Controller Bay	Campbell River	0 *	NS	0	13,600
	Edwards River	5,200 *	NS	5,200	
	Okalee River	7,400 *	NS	7,400	
	Other Clear Streams	1,000 *	NS	1,000	
Bering River Aerial Survey Total		28,900	1,820		29,450
Copper River Aerial Survey Total					45,740
Copper and Bering River Aerial Survey Combined Total					75,190

<sup>a</sup> The survey sites represent most of the known coho salmon spawning locations in the Copper River delta and Bering River drainages. Weather permitting, the sites are surveyed weekly. The surveys provide information about the relative strength of escapement among years and within a year, time for spawning sites and relative escapement strength among sites. The indices are not intended to provide an actual estimate of escapement for coastal stocks but they have been for the purpose in the absence of any other escapement estimating method. The abbreviations used in the following table have the following meaning: NS = no survey, NC = surveyed but no count due to poor conditions. The + sign after some counts indicates that the count is the minimum estimate seen in less than ideal conditions. The symbol \* indicates that this survey count was used as the peak survey for the site without duplication of counts for survey sites along migratory corridors (see footnote b).

<sup>b</sup> For systems not flown on any given survey the expected for that system was subtracted from the total anticipated for that survey.

<sup>c</sup> The escapement estimates for each site are in the astericked survey estimate. Where the survey site is a terminal spawning area the peak count is used however, if the site is a schooling area for migratory fish bound for sites further upstream, the count which minimizes possible duplication counts across dates selected.

<sup>d</sup> The sum of the estimates by site within a system

\* Bering River counts include coho observed in the Don Miller Hill tributaries.

Appendix C.3. Estimated age and sex composition of sockeye salmon in the total indexed escapements to the Copper River delta and Bering River drainages, 1993.

		Brood Year and Age Group											Total	
		1991	1990		1989			1988		1987		1986		
		0.1	0.2	1.1	0.3	1.2	2.1	1.3	2.2	1.4	2.3	2.4		
<b>Copper River Delta Escapements</b>														
<b>Strata Combined:</b> 05/31 – 09/24														
Sampling dates: 06/11 – 09/13														
Sample size: 5,734														
Female	Percent of sample	0.0	0.2	0.0	3.7	6.6	0.0	37.7	0.1	0.1	0.7	0.0	49.2	
	Number in escapement	0	76	0	1,610	2,865	0	16,354	63	39	293	0	21,300	
Male	Percent of sample	0.1	7.0	3.2	1.3	21.2	0.1	16.9	0.2	0.0	0.4	0.0	50.5	
	Number in escapement	44	3,046	1,391	547	9,187	23	7,330	108	17	163	3	21,858	
Total	Percent of sample	0.1	7.2	3.2	5.0	27.9	0.1	55.0	0.4	0.1	1.1	0.0	100.0	
	Number in escapement	44	3,122	1,391	2,164	12,067	23	23,813	171	61	467	3	43,325	
	Standard error	31	203	116	174	315	11	328	30	19	56	3		
<b>Bering River Escapements</b>														
<b>Strata dates:</b> 05/31 – 08/12														
<b>Sampling dates:</b> 07/13 – 08/12														
<b>Sample size:</b> 1,097														
Female	Percent of sample	0.0	0.0	0.0	8.4	4.9	0.0	48.1	0.2	0.9	0.4	0.0	62.8	
	Number in escapement	0	0	0	2,005	1,171	0	11,542	48	213	94	0	15,073	
Male	Percent of sample	0.0	0.4	0.6	2.8	18.2	0.1	13.6	0.1	0.4	0.1	0.0	36.4	
	Number in escapement	0	85	153	683	4,377	28	3,261	36	85	34	0	8,743	
Total	Percent of sample	0.0	0.4	0.6	11.2	23.1	0.1	62.4	0.4	1.2	0.5	0.0	100.0	
	Number in escapement	0	85	153	2,687	5,548	28	14,974	84	299	129	0	23,987	
	Standard error	0	60	74	319	416	7	479	11	112	44	0		
<b>Combined Copper River delta and Bering River Escapements</b>														
<b>Strata Combined:</b> 05/31 – 09/24														
<b>Sampling dates:</b> 06/11 – 09/13														
<b>Sample size:</b> 6,831														
Female	Percent of sample	0.0	0.1	0.0	5.4	6.0	0.0	41.4	0.2	0.4	0.6	0.0	54.04	
	Number in escapement	0	75.8	0	3615	4036	0	27896	111	252	387	0	36373	
Male	Percent of sample	0.1	4.7	2.3	1.8	20.2	0.1	15.7	0.2	0.2	0.3	0.0	45.46	
	Number in escapement	44	3,131	1,544	1,230	13,565	52	10,592	143	102	197	3	30,601	
Total	Percent of sample	0.1	4.8	2.3	7.2	26.2	0.1	57.6	0.4	0.5	0.9	0.0	100	
	Number in escapement	44	3,207	1,544	4,852	17,615	52	38,787	255	359	595	3	67,312	
	Standard error	31	212	138	363	522	13	580	32	114	71	3		

Appendix C.4. Estimated age and sex composition of sockeye salmon escapements to the Copper River delta, by location, 1993.

		Brood Year and Age Group											Total	
		1991	1990		1989			1988		1987		1986		
		0.1	0.2	1.1	0.3	1.2	2.1	1.3	2.2	1.4	2.3	2.4		
<b><u>Evak Lake - South Beaches</u></b>														
Stratum dates:	05/31 - 07/15													
Sampling dates:	07/01													
Sample size:	555													
Female	Percent of sample	0.0	0.0	0.0	1.3	0.4	0.0	51.4	0.0	0.0	1.1	0.0	54.1	
	Number in escapement	0	0	0	20	6	0	822	0	0	17	0	865	
Male	Percent of sample	0.0	0.0	0.0	0.5	6.5	0.0	37.5	0.2	0.0	0.2	0.0	44.9	
	Number in escapement	0	0	0	9	104	0	600	3	0	3	0	718	
Total	Percent of sample	0.0	0.0	0.0	1.8	6.8	0.0	89.9	0.2	0.0	1.3	0.0	100.0	
	Number in escapement	0	0	0	29	110	0	1,439	3	0	20	0	1,600	
	Standard error	0	0	0	9	17	0	20	3	0	8	0		
<hr/>														
Stratum dates:	07/16 - 08/28													
Sampling dates:	08/06													
Sample size:	335													
Female	Percent of sample	0.0	0.0	0.0	2.4	0.0	0.0	59.7	0.0	0.0	0.6	0.0	62.7	
	Number in escapement	0	0	0	21	0	0	537	0	0	5	0	564	
Male	Percent of sample	0.0	0.9	0.6	0.0	11.0	0.0	24.2	0.0	0.0	0.3	0.0	37.0	
	Number in escapement	0	8	5	0	99	0	218	0	0	3	0	333	
Total	Percent of sample	0.0	0.9	0.6	2.4	11.0	0.0	84.2	0.0	0.0	0.9	0.0	100.0	
	Number in escapement	0	8	5	21	99	0	758	0	0	8	0	900	
	Standard error	0	5	4	8	15	0	18	0	0	5	0		
<hr/>														
<b><u>Strata Combined:</u></b>	05/31 - 08/28													
Sampling dates:	07/01 - 08/06													
Sample size:	890													
Female	Percent of sample	0.0	0.0	0.0	1.7	0.2	0.0	54.4	0.0	0.0	0.9	0.0	57.2	
	Number in escapement	0	0	0	42	6	0	1,359	0	0	23	0	1,429	
Male	Percent of sample	0.0	0.3	0.2	0.3	8.1	0.0	32.7	0.1	0.0	0.2	0.0	42.0	
	Number in escapement	0	8	5	9	203	0	817	3	0	6	0	1,051	
Total	Percent of sample	0.0	0.3	0.2	2.0	8.4	0.0	87.8	0.1	0.0	1.1	0.0	100.0	
	Number in escapement	0	8	5	50	209	0	2,196	3	0	28	0	2,500	
	Standard error	0	5	4	12	23	0	27	3	0	9	0		

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		Brood Year and Age Group											Total	
		1991	1990		1989			1988		1987		1986		
		0.1	0.2	1.1	0.3	1.2	2.1	1.3	2.2	1.4	2.3	2.4		
<b>Eyak Lake - Middle Arm</b>														
Stratum dates: 05/31 - 06/14														
Sampling dates: 06/11														
Sample size: 201														
Female	Percent of sample	0.0	0.0	0.0	0.5	0.0	0.0	47.3	0.0	2.0	0.0	0.0	49.8	
	Number in escapement	0	0	0	7	0	0	662	0	28	0	0	697	
Male	Percent of sample	0.0	0.0	0.0	0.0	0.5	0.0	46.8	0.0	1.0	0.5	0.0	48.8	
	Number in escapement	0	0	0	0	7	0	655	0	14	7	0	683	
Total	Percent of sample	0.0	0.0	0.0	1.0	0.5	0.0	95.0	0.0	3.0	0.5	0.0	100.0	
	Number in escapement	0	0	0	14	7	0	1,330	0	42	7	0	1,400	
	Standard error	0	0	0	10	7	0	22	0	17	7	0		
Stratum dates: 06/15 - 07/29														
Sampling dates: 07/22														
Sample size: 358														
Female	Percent of sample	0.0	0.0	0.0	3.6	3.9	0.0	37.4	0.0	0.6	1.7	0.0	47.2	
	Number in escapement	0	0	0	70	76	0	725	0	11	32	0	914	
Male	Percent of sample	0.0	1.1	3.4	1.1	29.1	0.0	12.8	0.3	0.0	1.4	0.0	49.2	
	Number in escapement	0	22	65	22	563	0	249	5	0	27	0	952	
Total	Percent of sample	0.0	1.1	3.4	4.7	33.2	0.0	52.8	0.3	0.8	3.6	0.0	100.0	
	Number in escapement	0	22	65	92	644	0	1,023	5	16	70	0	1,937	
	Standard error	0	11	18	22	48	0	51	5	9	19	0		
Stratum dates: 07/30 - 08/16														
Sampling dates: 08/05														
Sample size: 359														
Female	Percent of sample	0.0	0.3	0.0	2.2	24.0	0.0	21.7	1.4	0.0	2.5	0.0	52.1	
	Number in escapement	0	1	0	10	104	0	94	6	0	11	0	226	
Male	Percent of sample	0.0	0.3	3.9	0.8	30.6	0.6	10.3	0.6	0.0	0.6	0.0	47.6	
	Number in escapement	0	1	17	4	133	2	45	2	0	2	0	206	
Total	Percent of sample	0.0	0.6	3.9	3.1	54.9	0.6	32.0	1.9	0.0	3.1	0.0	100.0	
	Number in escapement	0	2	17	13	238	2	139	8	0	13	0	433	
	Standard error	0	2	4	4	11	2	11	3	0	4	0		
Stratum dates: 08/17 - 09/24														
Sampling dates: 09/13														
Sample size: 358														
Female	Percent of sample	0.0	0.3	0.0	1.4	45.8	0.0	18.4	0.3	0.0	0.3	0.0	66.5	
	Number in escapement	0	1	0	6	197	0	79	1	0	1	0	286	
Male	Percent of sample	0.0	0.3	0.8	0.6	18.2	0.0	12.8	0.3	0.0	0.6	0.0	33.5	
	Number in escapement	0	1	4	2	78	0	55	1	0	2	0	144	
Total	Percent of sample	0.0	0.6	0.8	2.0	64.0	0.0	31.3	0.6	0.0	0.8	0.0	100.0	
	Number in escapement	0	2	4	8	275	0	135	2	0	4	0	430	
	Standard error	0	2	2	3	11	0	11	2	0	2	0		
<b>Strata Combined:</b> 05/31 - 09/24														
Sampling dates: 06/11 - 09/13														
Sample size: 1,276														
Female	Percent of sample	0.0	0.1	0.0	2.2	9.0	0.0	37.1	0.2	0.9	1.1	0.0	50.5	
	Number in escapement	0	2	0	93	376	0	1,560	7	39	45	0	2,122	
Male	Percent of sample	0.0	0.6	2.0	0.7	18.6	0.1	23.9	0.2	0.3	0.9	0.0	47.3	
	Number in escapement	0	24	85	28	780	2	1,003	9	14	39	0	1,985	
Total	Percent of sample	0.0	0.6	2.0	3.0	27.7	0.1	62.5	0.4	1.4	2.2	0.0	100.0	
	Number in escapement	0	26	85	128	1,163	2	2,626	16	58	94	0	4,200	
	Standard error	0	11	19	24	51	2	58	6	19	21	0		

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		Brood Year and Age Group											Total	
		1991	1990		1989			1988		1987		1986		
		0.1	0.2	1.1	0.3	1.2	2.1	1.3	2.2	1.4	2.3	2.4		
<b>Eyak Lake - Hatchery Creek</b>														
Stratum dates:		06/15 - 09/24												
Sampling dates:		08/06 , 08/10												
Sample size:		404												
Female	Percent of sample	0.0	0.0	0.0	0.2	9.2	0.0	18.1	1.0	0.0	6.4	0.0	34.9	
	Number in escapement	0	0	0	3	101	0	199	11	0	71	0	384	
Male	Percent of sample	0.0	0.0	9.2	0.0	35.1	0.7	10.6	5.2	0.2	3.7	0.2	65.1	
	Number in escapement	0	0	101	0	387	8	117	57	3	41	3	716	
Total	Percent of sample	0.0	0.0	9.2	0.2	44.3	0.7	28.7	6.2	0.2	10.1	0.2	100.0	
	Number in escapement	0	0	101	3	487	8	316	68	3	112	3	1,100	
	Standard error	0	0	16	3	27	5	25	13	3	17	3		
<b>Eyak Lake Total</b>														
Strata Combined:		05/31 - 09/24												
Sampling dates:		06/11 - 09/13												
Sample size:		2,570												
Female	Percent of sample	0.0	0.0	0.0	1.8	6.2	0.0	40.0	0.2	0.5	1.8	0.0	50.5	
	Number in escapement	0	2	0	137	483	0	3,118	18	39	138	0	3,935	
Male	Percent of sample	0.0	0.4	2.5	0.5	17.6	0.1	24.8	0.9	0.2	1.1	0.0	48.1	
	Number in escapement	0	32	192	36	1,370	11	1,938	69	17	85	3	3,752	
Total	Percent of sample	0.0	0.4	2.5	2.3	23.8	0.1	65.9	1.1	0.8	3.0	0.0	100.0	
	Number in escapement	0	35	192	181	1,860	11	5,138	87	61	234	3	7,800	
	Standard error	0	12	25	27	62	5	68	15	19	28	3		

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		Brood Year and Age Group											Total
		1991	1990		1989			1988		1987		1986	
		0.1	0.2	1.1	0.3	1.2	2.1	1.3	2.2	1.4	2.3	2.4	
<b>McKinley Lake</b>													
Stratum dates:		06/29 - 09/24											
Sampling dates:		07/20											
Sample size:		704											
Female	Percent of sample	0.0	0.0	0.0	2.7	4.4	0.0	43.2	0.1	0.0	0.3	0.0	50.7
	Number in escapement	0	0	0	289	471	0	4,620	15	0	30	0	5,426
Male	Percent of sample	0.0	2.3	0.9	0.4	19.5	0.0	26.3	0.0	0.0	0.0	0.0	49.3
	Number in escapement	0	243	91	46	2,082	0	2,812	0	0	0	0	5,274
Total	Percent of sample	0.0	2.3	0.9	3.1	23.9	0.0	69.5	0.1	0.0	0.3	0.0	100.0
	Number in escapement	0	243	91	334	2,553	0	7,432	15	0	30	0	10,700
	Standard error	0	60	37	70	172	0	186	15	0	21	0	
<b>27-Mile Slough - Confluence with Copper River</b>													
Stratum dates:		06/15 - 09/24											
Sampling dates:		07/03											
Sample size:		394											
Female	Percent of sample	0.0	0.3	0.0	14.5	6.1	0.0	6.9	0.3	0.0	0.3	0.0	28.2
	Number in escapement	0	4	0	235	99	0	111	4	0	4	0	458
Male	Percent of sample	0.0	13.5	2.0	4.3	50.3	0.0	1.3	0.0	0.0	0.0	0.0	71.3
	Number in escapement	0	219	33	70	817	0	21	0	0	0	0	1,159
Total	Percent of sample	0.0	13.7	2.0	18.8	56.9	0.0	8.1	0.3	0.0	0.3	0.0	100.0
	Number in escapement	0	223	33	305	924	0	132	4	0	4	0	1,625
	Standard error	0	28	12	32	41	0	22	4	0	4	0	
<b>39-Mile Creek</b>													
Stratum dates:		07/07 - 09/24											
Sampling dates:		08/03											
Sample size:		479											
Female	Percent of sample	0.0	0.0	0.0	4.4	11.3	0.0	26.1	0.4	0.0	1.0	0.0	43.2
	Number in escapement	0	0	0	175	451	0	1,044	17	0	42	0	1,729
Male	Percent of sample	0.0	0.8	8.8	3.3	30.9	0.2	11.1	0.6	0.0	1.0	0.0	56.8
	Number in escapement	0	33	351	134	1,236	8	443	25	0	42	0	2,271
Total	Percent of sample	0.0	0.8	8.8	7.7	42.2	0.2	37.2	1.0	0.0	2.1	0.0	100.0
	Number in escapement	0	33	351	309	1,687	8	1,486	42	0	84	0	4,000
	Standard error	0	17	52	49	90	8	88	19	0	26	0	
<b>Martin Lake</b>													
Stratum dates:		06/04 - 09/24											
Sampling dates:		07/16 - 07/17											
Sample size:		476											
Female	Percent of sample	0.0	0.2	0.0	3.6	9.9	0.0	57.6	0.0	0.0	0.4	0.0	71.6
	Number in escapement	0	18	0	304	839	0	4,893	0	0	36	0	6,089
Male	Percent of sample	0.2	0.8	1.9	1.3	20.6	0.0	3.4	0.0	0.0	0.0	0.0	28.2
	Number in escapement	18	71	161	107	1,750	0	286	0	0	0	0	2,393
Total	Percent of sample	0.2	1.1	1.9	4.8	30.5	0.0	61.1	0.0	0.0	0.4	0.0	100.0
	Number in escapement	18	89	161	411	2,589	0	5,196	0	0	36	0	8,500
	Standard error	18	40	53	84	179	0	190	0	0	25	0	

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		Brood Year and Age Group											Total
		1991	1990		1989			1988		1987		1986	
		0.1	0.2	1.1	0.3	1.2	2.1	1.3	2.2	1.4	2.3	2.4	
<b><u>Little Martin Lake</u></b>													
Stratum dates:		07/13 - 09/13											
Sampling dates:		08/26											
Sample size:		426											
Female	Percent of sample	0.0	0.0	0.0	0.0	27.5	0.0	7.3	0.5	0.0	0.0	0.0	35.2
	Number in escapement	0	0	0	0	522	0	138	9	0	0	0	669
Male	Percent of sample	0.0	0.2	20.2	0.0	43.4	0.2	0.0	0.7	0.0	0.0	0.0	64.8
	Number in escapement	0	4	384	0	825	4	0	13	0	0	0	1,231
Total	Percent of sample	0.0	0.2	20.2	0.0	70.9	0.2	7.3	1.2	0.0	0.0	0.0	100.0
	Number in escapement	0	4	384	0	1,347	4	138	22	0	0	0	1,900
	Standard error	0	4	37	0	42	4	24	10	0	0	0	
<b><u>Tokun Lake</u></b>													
Stratum dates:		06/04 - 09/24											
Sampling dates:		08/25											
Sample size:		475											
Female	Percent of sample	0.0	0.0	0.0	0.2	0.0	0.0	48.0	0.0	0.0	1.3	0.0	49.5
	Number in escapement	0	0	0	7	0	0	1,632	0	0	43	0	1,682
Male	Percent of sample	0.0	0.0	0.0	0.0	2.3	0.0	46.3	0.0	0.0	1.1	0.0	49.7
	Number in escapement	0	0	0	0	79	0	1,575	0	0	36	0	1,689
Total	Percent of sample	0.0	0.0	0.0	0.2	2.3	0.0	95.2	0.0	0.0	2.3	0.0	100.0
	Number in escapement	0	0	0	7	79	0	3,235	0	0	79	0	3,400
	Standard error	0	0	0	7	23	0	34	0	0	23	0	
<b><u>Martin River Slough</u></b>													
Stratum dates:		06/10 - 09/24											
Sampling dates:		06/24 - 06/25											
Sample size:		210											
Female	Percent of sample	0.0	1.0	0.0	8.6	0.0	0.0	14.8	0.0	0.0	0.0	0.0	24.3
	Number in escapement	0	51	0	463	0	0	797	0	0	0	0	1,311
Male	Percent of sample	0.5	45.2	3.3	2.9	19.0	0.0	4.8	0.0	0.0	0.0	0.0	75.7
	Number in escapement	26	2,443	180	154	1,029	0	257	0	0	0	0	4,089
Total	Percent of sample	0.5	46.2	3.3	11.4	19.0	0.0	19.5	0.0	0.0	0.0	0.0	100.0
	Number in escapement	26	2,494	180	617	1,029	0	1,054	0	0	0	0	5,400
	Standard error	26	186	67	119	147	0	148	0	0	0	0	
<b><u>Copper River Delta Escapements</u></b>													
Strata Combined:		05/31 - 09/24											
Sampling dates:		06/11 - 09/13											
Sample size:		5,734											
Female	Percent of sample	0.0	0.2	0.0	3.7	6.6	0.0	37.7	0.1	0.1	0.7	0.0	49.2
	Number in escapement	0	76	0	1,610	2,865	0	16,354	63	39	293	0	21,300
Male	Percent of sample	0.1	7.0	3.2	1.3	21.2	0.1	16.9	0.2	0.0	0.4	0.0	50.5
	Number in escapement	44	3,046	1,391	547	9,187	23	7,330	108	17	163	3	21,858
Total	Percent of sample	0.1	7.2	3.2	5.0	27.9	0.1	55.0	0.4	0.1	1.1	0.0	100.0
	Number in escapement	44	3,122	1,391	2,164	12,067	23	23,813	171	61	467	3	43,325
	Standard error	31	203	116	174	315	11	328	30	19	56	3	

Appendix C.5. Estimated age and sex composition of sockeye salmon escapements to the Bering River drainage, by location, 1993.

		Brood Year and Age Group									
		1990		1989			1988		1987		
		0.2	1.1	0.3	1.2	2.1	1.3	2.2	1.4	2.3	Total
<b><u>Bering Lake</u></b>											
Stratum dates:		05/31 – 09/24									
Sampling dates:		07/13 – 07/13									
Sample size:		542									
Female	Percent of sample	0.0	0.0	8.7	4.4	0.0	49.1	0.0	0.9	0.2	63.3
	Number in escapement	0	0	2,005	1,024	0	11,347	0	213	43	14,631
Male	Percent of sample	0.4	0.6	3.0	18.1	0.0	13.7	0.0	0.4	0.0	36.0
	Number in escapement	85	128	683	4,180	0	3,157	0	85	0	8,318
Total	Percent of sample	0.4	0.6	11.6	22.5	0.0	63.5	0.0	1.3	0.2	100.0
	Number in escapement	85	128	2,687	5,204	0	14,674	0	299	43	23,120
	Standard error	60	74	319	415	0	479	0	112	43	
<b><u>Kushtaka Lake</u></b>											
Stratum dates:		08/04 – 08/12									
Sampling dates:		08/12 – 08/12									
Sample size:		555									
Female	Percent of sample	0.0	0.0	0.0	16.9	0.0	22.5	5.6	0.0	5.9	51.0
	Number in escapement	0	0	0	147	0	195	48	0	52	442
Male	Percent of sample	0.0	2.9	0.0	22.7	3.2	12.1	4.1	0.0	4.0	49.0
	Number in escapement	0	25	0	197	28	105	36	0	34	425
Total	Percent of sample	0.0	2.9	0.0	39.6	3.2	34.6	9.7	0.0	9.9	100.0
	Number in escapement	0	25	0	344	28	300	84	0	86	867
	Standard error	0	6	0	18	7	18	11	0	11	
<b><u>Combined Bering River Escapements</u></b>											
Strata Combined:		05/31 – 08/12									
Sampling dates:		07/13 – 08/12									
Sample size:		1,097									
Female	Percent of sample	0.0	0.0	8.4	4.9	0.0	48.1	0.2	0.9	0.4	62.8
	Number in escapement	0	0	2,005	1,171	0	11,542	48	213	94	15,073
Male	Percent of sample	0.4	0.6	2.8	18.2	0.1	13.6	0.1	0.4	0.1	36.4
	Number in escapement	85	153	683	4,377	28	3,261	36	85	34	8,743
Total	Percent of sample	0.4	0.6	11.2	23.1	0.1	62.4	0.4	1.2	0.5	100.0
	Number in escapement	85	153	2,687	5,548	28	14,974	84	299	129	23,987
	Standard error	60	74	319	416	7	479	11	112	44	

## Appendix D

### Salmon Escapements to the Upper Copper River

Appendix D.1. Daily Copper River salmon escapement estimates at the Miles Lake sonar site, 1993.

Date	North Bank	South Bank	Daily	Cumulative
05/20	65	9,438 <sup>a</sup>	9,503	9,503
05/21	85	13,592	13,677	23,180
05/22	269	22,437	22,706	45,886
05/23	251	28,174	28,425	74,311
05/24	1,077	30,903	31,980	106,291
05/25	1,379	37,202	38,581	144,872
05/26	1,254	22,393	23,647	168,519
05/27	530	12,355	12,885	181,404
05/28	457	17,019	17,476	198,880
05/29	218	12,938	13,156	212,036
05/30	214	8,264	8,478	220,514
05/31	180	16,506	16,686	237,200
06/01	120	16,353	16,473	253,673
06/02	240	22,591	22,831	276,504
06/03	260	14,331	14,591	291,095
06/04	268	17,317	17,585	308,680
06/05	552	25,227	25,779	334,459
06/06	477	25,166	25,643	360,102
06/07	391	17,677	18,068	378,170
06/08	1,277	19,485	20,762	398,932
06/09	506	24,491	24,997	423,929
06/10	758	19,036	19,794	443,723
06/11	218	10,901	11,119	454,842
06/12	179	18,143	18,322	473,164
06/13	250	12,622	12,872	486,036
06/14	120	8,237	8,357	494,393
06/15	336	13,015	13,351	507,744
06/16	545	13,702	14,247	521,991
06/17	124	7,497	7,621	529,612
06/18	99	4,822	4,921	534,533
06/19	71	6,253	6,324	540,857
06/20	159	4,741	4,900	545,757
06/21	168	3,368	3,536	549,293
06/22	225	2,639	2,864	552,157
06/23	292	4,777	5,069	557,226
06/24	186	5,885	6,071	563,297
06/25	223	4,098	4,321	567,618
06/26	103	2,615	2,718	570,336
06/27	145	3,225	3,370	573,706
06/28	117	4,244	4,361	578,067
06/29	486	4,490	4,976	583,043

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Appendix D.1. (Page 2 of 2).

Date	North Bank	South Bank	Daily	Cumulative
06/30	308	8,076	8,384	591,427
07/01	358	7,281	7,639	599,066
07/02	212	5,508	5,720	604,786
07/03	109	5,036	5,145	609,931
07/04	151	5,376	5,527	615,458
07/05	227	6,112	6,339	621,797
07/06	226	6,205	6,431	628,228
07/07	393	8,836	9,229	637,457
07/08	320	10,066	10,386	647,843
07/09	271	10,834	11,105	658,948
07/10	277	9,289	9,566	668,514
07/11	404	6,960	7,364	675,878
07/12	409	6,410	6,819	682,697
07/13	311	5,304	5,615	688,312
07/14	186	7,487	7,673	695,985
07/15	394	5,718	6,112	702,097
07/16	181	6,699	6,880	708,977
07/17	227	4,948	5,175	714,152
07/18	282	5,116	5,398	719,550
07/19	217 <sup>b</sup>	6,565	6,782	726,332
07/20	237	7,180	7,417	733,749
07/21	251	7,593	7,844	741,593
07/22	295	8,946	9,241	750,834
07/23	448	13,564	14,012	764,846
07/24	406	12,317	12,723	777,569
07/25	289	8,759	9,048	786,617
07/26	205	6,201	6,406	793,023
07/27	238	7,227	7,465	800,488
07/28	191	5,781	5,972	806,460
07/29	195	5,921	6,116	812,576
07/30	208	6,295	6,503	819,079
07/31	177	5,362	5,539	824,618
08/01	146	4,414	4,560	829,178
08/02	134	4,075	4,209	833,387
Total	23,757	809,630	833,387	833,387

<sup>a</sup> Went to permanent substrate.

<sup>b</sup> North bank pulled and all counts after July 19 are interpolated. North bank counts are derived from the average percentage of north versus south bank counts of 3.3 percent.

Appendix D.2. Daily escapement counts of sockeye salmon through the Long Lake weir, 1993.

Date	Escapement <sup>a</sup>		Date	Escapement <sup>a</sup>	
	Daily	Cumulative		Daily	Cumulative
07/26	0	0	08/28	1,323	6,474
07/27	0	0	08/29	1,001	7,475
07/28	0	0	08/30	2,043	9,518
07/29	0	0	08/31	52	9,570
07/30	0	0	09/01	139	9,709
07/31	0	0	09/02	210	9,919
08/01	0	0	09/03	10	9,929
08/02	0	0	09/04	431	10,360
08/03	0	0	09/05	226	10,586
08/04	0	0	09/06	235	10,821
08/05	0	0	09/07	376	11,197
08/06	0	0	09/08	313	11,510
08/07	0	0	09/09	607	12,117
08/08	0	0	09/10	315	12,432
08/09	0	0	09/11	160	12,592
08/10	0	0	09/12	248	12,840
08/11	0	0	09/13	161	13,001
08/12	0	0	09/14	136	13,137
08/13	0	0	09/15	187	13,324
08/14	0	0	09/16	214	13,538
08/15	1	1	09/17	508	14,046
08/16	0	1	09/18	8	14,054
08/17	83	84	09/19	168	14,222
08/18	159	243	09/20	416	14,638
08/19	254	497	09/21	400	15,038
08/20	0	497	09/22	27	15,065
08/21	330	827	09/23	130	15,195
08/22	714	1,541	09/24	116	15,311
08/23	335	1,876	09/25	128	15,439
08/24	482	2,358	09/26	258	15,697
08/25	829	3,187	09/27	112	15,809
08/26	1,234	4,421	09/28	254	16,063
08/27	730	5,151	09/29	38	16,101
				Total	16,101

<sup>a</sup> Data collection by Cliff Collins and family of Long Lake, Alaska.

Appendix D.3. Temporally stratified age and sex composition of sockeye salmon in the upper Copper River escapement past the Miles Lake Sonar Project estimated from fish sampled in the personal-use and subsistence fisheries near Chitina, 1993.

		Brood Year and Age Group										Total	
		1990		1989		1988			1987		1986		
		0.2	1.1	0.3	1.2	0.4	1.3	2.2	1.4	2.3	2.4		
Stratum dates: 05/20 - 06/25													
Sampling dates: 06/04 - 07/05													
Sample size: 803													
Female	Percent of sample	0.0	0.0	6.8	10.5	0.1	38.7	0.6	0.1	2.0	0.1	59.0	
	Number in catch	0	0	38,878	59,377	707	219,837	3,534	707	11,310	707	335,057	
Male	Percent of sample	0.1	0.2	5.2	6.6	0.1	27.5	0.1	0.1	0.7	0.0	40.8	
	Number in catch	707	1,414	29,689	37,464	707	156,219	707	707	4,241	0	231,854	
Total	Percent of sample	0.1	0.2	12.1	17.1	0.2	66.4	0.7	0.2	2.7	0.1	100.0	
	Number in catch	707	1,414	68,567	96,841	1,414	376,763	4,241	1,414	15,551	707	567,618	
	Standard error	707	999	6,532	7,540	999	9,469	1,726	999	3,272	707		
Stratum dates: 06/26 - 08/02													
Sampling dates: 07/06 - 08/14													
Sample size: 1,311													
Female	Percent of sample	0.0	0.0	1.8	3.6	0.1	53.9	0.1	0.4	1.8	0.0	61.6	
	Number in catch	0	0	4,865	9,528	203	143,325	203	1,014	4,663	0	163,800	
Male	Percent of sample	0.1	0.0	1.3	3.8	0.0	32.0	0.1	0.2	0.8	0.1	38.2	
	Number in catch	203	0	3,446	10,136	0	84,941	203	405	2,027	203	101,564	
Total	Percent of sample	0.1	0.0	3.1	7.5	0.1	86.0	0.2	0.5	2.5	0.1	100.0	
	Number in catch	203	0	8,312	19,867	203	228,468	405	1,419	6,690	203	265,769	
	Standard error	203	0	1,278	1,931	203	2,551	287	535	1,150	203		
Strata Combined: 05/20 - 08/02													
Sampling dates: 06/04 - 08/14													
Sample size: 2,114													
Female	Percent of sample	0.0	0.0	5.2	8.3	0.1	43.6	0.4	0.2	1.9	0.1	59.9	
	Number in catch	0	0	43,743	68,905	910	363,162	3,737	1,720	15,973	707	498,857	
Male	Percent of sample	0.1	0.2	4.0	5.7	0.1	28.9	0.1	0.1	0.8	0.0	40.0	
	Number in catch	910	1,414	33,135	47,600	707	241,159	910	1,112	6,268	203	333,418	
Total	Percent of sample	0.1	0.2	9.2	14.0	0.2	72.6	0.6	0.3	2.7	0.1	100.0	
	Number in catch	910	1,414	76,878	116,708	1,616	605,231	4,647	2,833	22,241	910	833,387	
	Standard error	735	999	6,656	7,783	1,019	9,806	1,750	1,133	3,468	735		

**Appendix E**  
**Age and Sex Data for Commercial Common Property Salmon Catches from Prince William Sound (Districts 221–229)**

Appendix E.1. Temporally stratified age and sex composition of sockeye salmon harvested in the Coghill District commercial common property gillnet fishery, 1993.

		Brood Year and Age Group									Total
		1990	1989			1988		1987			
		1.1	0.3	1.2	2.1	1.3	2.2	1.4	2.3	3.2	
Stratum dates: 06/07 – 06/24											
Sampling dates: 06/22											
Sample size: 138											
Female	Percent of sample	0.0	0.0	5.8	0.0	42.0	3.6	0.0	5.1	0.7	57.2
	Number in catch	0	0	156	0	1,133	98	0	137	20	1,543
Male	Percent of sample	0.0	0.7	10.1	0.0	23.9	3.6	0.7	3.6	0.0	42.8
	Number in catch	0	20	274	0	645	98	20	98	0	1,153
Total	Percent of sample	0.0	0.7	15.9	0.0	65.9	7.2	0.7	8.7	0.7	100.0
	Number in catch	0	20	430	0	1,778	195	20	234	20	2,696
	Standard error	0	20	84	0	109	60	20	65	20	
Stratum dates: 06/25 – 07/01											
Sampling dates: 06/28											
Sample size: 374											
Female	Percent of sample	0.0	0.0	11.5	0.0	19.8	2.7	0.5	3.7	0.3	38.5
	Number in catch	0	0	1,118	0	1,924	260	52	364	26	3,745
Male	Percent of sample	0.0	0.0	20.9	0.0	16.6	4.8	0.0	2.4	0.0	44.7
	Number in catch	0	0	2,028	0	1,612	468	0	234	0	4,343
Total	Percent of sample	0.0	0.0	38.0	0.0	45.2	8.6	0.5	7.5	0.3	100.0
	Number in catch	0	0	3,693	0	4,395	832	52	728	26	9,726
	Standard error	0	0	244	0	251	141	37	133	26	
Stratum dates: 07/02 – 07/15											
Sampling dates: 07/05											
Sample size: 410											
Female	Percent of sample	0.0	0.0	19.0	0.0	20.5	1.2	0.0	1.7	0.0	42.4
	Number in catch	0	0	5,883	0	6,335	377	0	528	0	13,123
Male	Percent of sample	0.2	0.0	33.9	0.0	16.8	5.4	0.0	1.2	0.0	57.6
	Number in catch	75	0	10,483	0	5,204	1,659	0	377	0	17,799
Total	Percent of sample	0.2	0.0	52.9	0.0	37.3	6.6	0.0	2.9	0.0	100.0
	Number in catch	75	0	16,366	0	11,539	2,036	0	905	0	30,922
	Standard error	75	0	763	0	739	379	0	258	0	
Stratum dates: 07/16 – 09/25											
Sampling dates: 08/07											
Sample size: 529											
Female	Percent of sample	0.0	0.0	43.9	0.0	5.3	3.8	0.2	0.4	0.0	53.5
	Number in catch	0	0	10,169	0	1,227	877	44	88	0	12,405
Male	Percent of sample	0.6	0.0	32.7	0.4	9.5	2.5	0.0	0.9	0.0	46.5
	Number in catch	132	0	7,583	88	2,192	570	0	219	0	10,783
Total	Percent of sample	0.6	0.0	76.6	0.4	14.7	6.2	0.2	1.3	0.0	100.0
	Number in catch	132	0	17,753	88	3,419	1,447	44	307	0	23,188
	Standard error	76	0	427	62	358	244	44	115	0	

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## Appendix E.1. (Page 2 of 2).

		Brood Year and Age Group									Total	
		1990	1989			1988		1987				
		1.1	0.3	1.2	2.1	1.3	2.2	1.4	2.3	3.2		
<b>Strata Combined:</b> 06/07 - 09/25												
Sampling dates: 06/22 - 08/07												
Sample size: 1,451												
Female	Percent of sample	0.0	0.0	26.0	0.0	16.0	2.4	0.1	1.7	0.1	46.3	
	Number in catch	0	0	17,327	0	10,620	1,612	96	1,116	46	30,816	
Male	Percent of sample	0.3	0.0	30.6	0.1	14.5	4.2	0.0	1.4	0.0	51.2	
	Number in catch	207	20	20,368	88	9,653	2,795	20	928	0	34,078	
Total	Percent of sample	0.3	0.0	57.5	0.1	31.8	6.8	0.2	3.3	0.1	100.0	
	Number in catch	207	20	38,241	88	21,131	4,510	115	2,174	46	66,532	
	Standard error	107	20	912	62	866	476	60	319	33		

Appendix E.2. Temporally stratified age and sex composition of sockeye salmon harvested in the Eshamy District commercial common property gillnet fishery, 1993.

		Brood Year and Age Group						Total
		1990	1989	1988		1987		
		1.1	1.2	1.3	2.2	1.4	2.3	
Stratum dates: 06/17 - 06/25								
Sampling dates: 06/22								
Sample size: 290								
Female	Percent of sample	0.0	4.1	51.7	1.4	0.3	2.8	60.3
	Number in catch	0	143	1,789	48	12	95	2,087
Male	Percent of sample	0.0	5.9	31.0	0.7	0.3	1.7	39.7
	Number in catch	0	203	1,073	24	12	60	1,371
Total	Percent of sample	0.0	10.0	82.8	2.1	0.7	4.5	100.0
	Number in catch	0	346	2,862	72	24	155	3,458
	Standard error	0	61	77	29	17	42	
Stratum dates: 06/28 - 07/01								
Sampling dates: 06/28								
Sample size: 922								
Female	Percent of sample	0.0	16.7	35.7	3.4	0.0	2.0	57.7
	Number in catch	0	2,674	5,714	538	0	313	9,239
Male	Percent of sample	0.1	20.4	18.3	2.3	0.1	1.1	42.3
	Number in catch	17	3,265	2,935	365	17	174	6,773
Total	Percent of sample	0.1	37.1	54.0	5.6	0.1	3.0	100.0
	Number in catch	17	5,939	8,649	903	17	486	16,012
	Standard error	17	255	263	122	17	91	
Stratum dates: 07/02 - 07/06								
Sampling dates: 07/05								
Sample size: 855								
Female	Percent of sample	0.0	28.1	26.5	1.2	0.0	2.7	58.5
	Number in catch	0	6,024	5,698	251	0	577	12,550
Male	Percent of sample	0.0	25.0	14.2	0.9	0.0	1.4	41.5
	Number in catch	0	5,371	3,037	201	0	301	8,910
Total	Percent of sample	0.0	53.1	40.7	2.1	0.0	4.1	100.0
	Number in catch	0	11,395	8,735	452	0	878	21,460
	Standard error	0	366	361	105	0	146	
Stratum dates: 07/09 - 07/30								
Sampling dates: 07/12								
Sample size: 324								
Female	Percent of sample	0.0	34.6	16.0	1.2	0.0	0.0	51.9
	Number in catch	0	11,295	5,244	403	0	0	16,942
Male	Percent of sample	1.2	29.9	14.5	1.9	0.3	0.3	48.1
	Number in catch	403	9,782	4,740	605	101	101	15,732
Total	Percent of sample	1.2	64.5	30.6	3.1	0.3	0.3	100.0
	Number in catch	403	21,077	9,984	1,008	101	101	32,674
	Standard error	201	870	837	314	101	101	

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		Brood Year and Age Group						Total
		1990	1989	1988		1987		
		1.1	1.2	1.3	2.2	1.4	2.3	
Stratum dates: 08/02 – 08/17								
Sampling dates: 08/15								
Sample size: 384								
Female	Percent of sample	1.3	37.2	3.6	1.0	0.0	0.0	43.2
	Number in catch	463	13,256	1,298	371	0	0	15,388
Male	Percent of sample	2.1	48.7	3.4	1.3	0.0	1.3	56.8
	Number in catch	742	17,335	1,205	463	0	463	20,208
Total	Percent of sample	3.4	85.9	7.0	2.3	0.0	1.3	100.0
	Number in catch	1,205	30,590	2,503	834	0	463	35,596
	Standard error	329	632	465	275	0	206	
Stratum dates: 08/20 – 09/20								
Sampling dates: 08/25								
Sample size: 348								
Female	Percent of sample	0.0	32.8	2.0	4.6	0.0	0.3	39.7
	Number in catch	0	24,020	1,475	3,371	0	211	29,077
Male	Percent of sample	1.4	51.7	0.6	6.0	0.0	0.6	60.3
	Number in catch	1,054	37,926	421	4,425	0	421	44,247
Total	Percent of sample	1.4	84.5	2.6	10.6	0.0	0.9	100.0
	Number in catch	1,054	61,946	1,896	7,796	0	632	73,324
	Standard error	468	1,425	625	1,213	0	364	
Strata Combined: 06/17 – 09/20								
Sampling dates: 06/22 – 08/25								
Sample size: 3,123								
Female	Percent of sample	0.3	31.5	11.6	2.7	0.0	0.7	46.7
	Number in catch	463	57,412	21,216	4,982	12	1,196	85,282
Male	Percent of sample	1.2	40.5	7.3	3.3	0.1	0.8	53.3
	Number in catch	2,216	73,882	13,411	6,083	130	1,520	97,242
Total	Percent of sample	1.5	71.9	19.0	6.1	0.1	1.5	100.0
	Number in catch	2,679	131,294	34,628	11,065	142	2,716	182,524
	Standard error	607	1,841	1,230	1,294	104	465	

Appendix E.3. Temporally stratified age and sex composition of sockeye salmon harvested in the Southwestern District commercial common property purse seine fishery, 1993.

		Brood Year and Age Group								
		1990		1989		1988		1987		
		0.2	1.1	0.3	1.2	1.3	2.2	1.4	2.3	Total
Stratum dates: 08/05 – 08/09										
Sampling dates: 08/07										
Sample size: 340										
Female	Percent of sample	0.0	0.0	0.0	45.0	4.7	2.1	0.3	0.3	52.4
	Number in catch	0	0	0	1,912	200	87	12	12	2,224
Male	Percent of sample	0.3	0.9	0.0	39.4	5.0	1.5	0.3	0.3	47.6
	Number in catch	12	37	0	1,674	212	62	12	12	2,024
Total	Percent of sample	0.3	0.9	0.0	84.4	9.7	3.5	0.6	0.6	100.0
	Number in catch	12	37	0	3,586	412	150	25	25	4,248
	Standard error	12	22	0	84	68	43	18	18	
Stratum dates: 08/10 – 08/14										
Sampling dates: 08/10										
Sample size: 162										
Female	Percent of sample	0.0	0.0	0.0	43.8	1.9	1.9	0.0	0.0	47.5
	Number in catch	0	0	0	2,801	118	118	0	0	3,037
Male	Percent of sample	0.0	6.8	0.0	32.7	9.9	3.1	0.0	0.0	52.5
	Number in catch	0	434	0	2,091	631	197	0	0	3,353
Total	Percent of sample	0.0	6.8	0.0	76.5	11.7	4.9	0.0	0.0	100.0
	Number in catch	0	434	0	4,891	749	316	0	0	6,390
	Standard error	0	127	0	213	162	109	0	0	
Stratum dates: 08/15 – 09/06										
Sampling dates: 08/21										
Sample size: 486										
Female	Percent of sample	0.2	0.2	0.2	47.1	2.1	2.7	0.0	0.4	52.9
	Number in catch	36	36	36	8,267	361	469	0	72	9,277
Male	Percent of sample	0.0	5.8	0.0	35.6	2.9	2.5	0.0	0.2	46.9
	Number in catch	0	1,011	0	6,245	505	433	0	36	8,231
Total	Percent of sample	0.2	6.0	0.2	82.9	4.9	5.1	0.0	0.6	100.0
	Number in catch	36	1,047	36	14,548	866	902	0	108	17,544
	Standard error	36	189	36	300	173	176	0	62	
Strata Combined: 08/05 – 09/06										
Sampling dates: 08/07 – 08/21										
Sample size: 988										
Female	Percent of sample	0.1	0.1	0.1	46.1	2.4	2.4	0.0	0.3	51.6
	Number in catch	36	36	36	12,979	679	675	12	85	14,539
Male	Percent of sample	0.0	5.3	0.0	35.5	4.8	2.5	0.0	0.2	48.3
	Number in catch	12	1,482	0	10,010	1,349	693	12	49	13,607
Total	Percent of sample	0.2	5.4	0.1	81.7	7.2	4.9	0.1	0.5	100.0
	Number in catch	49	1,518	36	23,025	2,028	1,368	25	133	28,182
	Standard error	38	228	36	377	246	211	18	65	

Appendix E.4. Temporally stratified age and sex composition of chum salmon harvested in the Coghill District commercial common property purse seine and drift gillnet fisheries, 1993.

		Brood Year and Age Group				Total
		1990	1989	1988	1987	
		0.2	0.3	0.4	0.5	
Stratum dates: 06/07 - 06/10						
Sampling dates: 06/08						
Sample size: 385						
Female	Percent of sample	0.0	9.9	46.0	0.3	56.1
	Number in catch	0	5,872	27,350	155	33,376
Male	Percent of sample	0.0	3.1	40.3	0.5	43.9
	Number in catch	0	1,854	23,951	309	26,114
Total	Percent of sample	0.0	13.0	86.2	0.8	100.0
	Number in catch	0	7,726	51,300	464	59,490
	Standard error	0	1,021	1,046	267	
Stratum dates: 06/11 - 06/17						
Sampling dates: 06/15						
Sample size: 380						
Female	Percent of sample	0.0	9.5	35.8	0.3	45.5
	Number in catch	0	9,878	37,316	274	47,468
Male	Percent of sample	0.0	9.2	45.0	0.0	54.2
	Number in catch	0	9,603	46,919	0	56,523
Total	Percent of sample	0.0	18.7	81.1	0.3	100.0
	Number in catch	0	19,481	84,510	274	104,265
	Standard error	0	2,088	2,099	274	
Stratum dates: 06/18 - 06/24						
Sampling dates: 06/21 - 06/22						
Sample size: 370						
Female	Percent of sample	0.0	15.4	40.0	0.0	55.4
	Number in catch	0	18,334	47,603	0	65,937
Male	Percent of sample	0.0	16.5	27.8	0.3	44.6
	Number in catch	0	19,620	33,129	322	53,071
Total	Percent of sample	0.0	31.9	67.8	0.3	100.0
	Number in catch	0	37,954	80,732	322	119,008
	Standard error	0	2,887	2,894	322	
Stratum dates: 06/25 - 07/01						
Sampling dates: 06/28 - 06/29						
Sample size: 364						
Female	Percent of sample	0.0	35.7	29.7	0.0	65.4
	Number in catch	0	58,860	48,899	0	107,759
Male	Percent of sample	0.0	20.6	13.7	0.3	34.6
	Number in catch	0	33,958	22,638	453	57,049
Total	Percent of sample	0.0	56.3	43.4	0.3	100.0
	Number in catch	0	92,818	71,538	453	164,808
	Standard error	0	4,290	4,287	453	

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		Brood Year and Age Group				Total
		1990	1989	1988	1987	
		0.2	0.3	0.4	0.5	
Stratum dates: 07/02 - 07/06						
Sampling dates: 07/05						
Sample size: 371						
Female	Percent of sample	0.3	38.3	17.0	0.0	55.5
	Number in catch	311	44,115	19,572	0	63,997
Male	Percent of sample	0.0	37.7	6.7	0.0	44.5
	Number in catch	0	43,493	7,767	0	51,260
Total	Percent of sample	0.3	76.0	23.7	0.0	100.0
	Number in catch	311	87,608	27,339	0	115,257
	Standard error	311	2,559	2,549	0	
Stratum dates: 07/09 - 09/19						
Sampling dates: 07/12						
Sample size: 68						
Female	Percent of sample	0.0	60.3	10.3	0.0	70.6
	Number in catch	0	45,839	7,826	0	53,665
Male	Percent of sample	1.5	23.5	4.4	0.0	29.4
	Number in catch	1,118	17,888	3,354	0	22,360
Total	Percent of sample	1.5	83.8	14.7	0.0	100.0
	Number in catch	1,118	63,727	11,180	0	76,025
	Standard error	1,118	3,420	3,289	0	
<b>Strata Combined:</b> 06/07 - 09/19						
Sampling dates: 06/08 - 07/12						
Sample size: 1,938						
Female	Percent of sample	0.0	28.6	29.5	0.1	58.3
	Number in catch	311	182,896	188,566	429	372,202
Male	Percent of sample	0.2	19.8	21.6	0.2	41.7
	Number in catch	1,118	126,417	137,758	1,083	266,377
Total	Percent of sample	0.2	48.4	51.1	0.2	100.0
	Number in catch	1,429	309,313	326,599	1,512	638,853
	Standard error	1,160	7,098	7,041	675	

Appendix E.5. Temporally stratified age and sex composition of chum salmon harvested in the Eshamy District commercial common property gillnet fishery, 1993.

		Brood Year and Age Group			Total
		1989	1988	1987	
		0.3	0.4	0.5	
Stratum dates:	06/17 - 06/25				
Sampling dates:	06/21 - 06/22				
Sample size:	245				
Female	Percent of sample	34.3	35.5	0.0	69.8
	Number in catch	1,833	1,898	0	3,731
Male	Percent of sample	11.0	18.4	0.8	30.2
	Number in catch	589	982	44	1,615
Total	Percent of sample	45.3	53.9	0.8	100.0
	Number in catch	2,422	2,880	44	5,346
	Standard error	170	171	31	
Stratum dates:	06/28 - 07/02				
Sampling dates:	06/28 - 06/29				
Sample size:	291				
Female	Percent of sample	62.5	16.8	0.0	79.4
	Number in catch	14,930	4,020	0	18,949
Male	Percent of sample	15.8	4.5	0.3	20.6
	Number in catch	3,773	1,066	82	4,922
Total	Percent of sample	78.4	21.3	0.3	100.0
	Number in catch	18,703	5,086	82	23,871
	Standard error	577	574	82	
Stratum dates:	07/03 - 09/20				
Sampling dates:	07/05				
Sample size:	363				
Female	Percent of sample	70.8	13.8	0.3	84.8
	Number in catch	12,883	2,506	50	15,440
Male	Percent of sample	13.2	1.9	0.0	15.2
	Number in catch	2,406	351	0	2,757
Total	Percent of sample	84.0	15.7	0.3	100.0
	Number in catch	15,289	2,857	50	18,197
	Standard error	350	348	50	
<b>Strata Combined:</b>	06/17 - 09/20				
Sampling dates:	06/21 - 07/05				
Sample size:	899				
Female	Percent of sample	62.5	17.8	0.1	80.4
	Number in catch	29,646	8,424	50	38,120
Male	Percent of sample	14.3	5.1	0.3	19.6
	Number in catch	6,769	2,399	126	9,294
Total	Percent of sample	76.8	22.8	0.4	100.0
	Number in catch	36,415	10,824	176	47,414
	Standard error	697	693	101	

Appendix E.6. Estimated age and sex composition of chum salmon harvested in the Southwestern District commercial common property purse seine fishery, 1993.

		Brood Year and Age Group			Total
		1990	1989	1988	
		0.2	0.3	0.4	
Stratum dates: 08/05 – 08/31					
Sampling dates: 08/20					
Sample size: 29					
Female	Percent of sample	3.4	69.0	17.2	89.7
	Number in catch	124	2,477	619	3,220
Male	Percent of sample	0.0	10.3	0.0	10.3
	Number in catch	0	372	0	372
Total	Percent of sample	3.4	79.3	17.2	100.0
	Number in catch	124	2,849	619	3,592
	Standard error	124	275	256	



Appendix E.7. Temporally stratified age and sex composition of chum salmon harvested in the Coghill, Eshamy, and Southwestern Districts commercial common property fisheries, 1993.

		Brood Year and Age Group				Total
		1990	1989	1988	1987	
		0.2	0.3	0.4	0.5	
<b><u>Coghill District</u></b>						
Strata Combined:	06/07 - 09/19					
Sampling dates:	06/08 - 07/12					
Sample size:	1,938					
Female	Percent of sample	0.0	28.6	29.5	0.1	58.3
	Number in catch	311	182,896	188,566	429	372,202
Male	Percent of sample	0.2	19.8	21.6	0.2	41.7
	Number in catch	1,118	126,417	137,758	1,083	266,377
Total	Percent of sample	0.2	48.4	51.1	0.2	100.0
	Number in catch	1,429	309,313	326,599	1,512	638,853
	Standard error	1,160	7,098	7,041	675	
<b><u>Eshamy District</u></b>						
Strata Combined:	06/17 - 09/20					
Sampling dates:	06/21 - 07/05					
Sample size:	899					
Female	Percent of sample	0.0	62.5	17.8	0.1	80.4
	Number in catch	0	29,646	8,424	50	38,120
Male	Percent of sample	0.0	14.3	5.1	0.3	19.6
	Number in catch	0	6,769	2,399	126	9,294
Total	Percent of sample	0.0	76.8	22.8	0.4	100.0
	Number in catch	0	36,415	10,824	176	47,414
	Standard error	0	697	693	101	
<b><u>Southwestern District</u></b>						
Stratum dates:	08/05 - 08/31					
Sampling dates:	08/20					
Sample size:	29					
Female	Percent of sample	3.4	69.0	17.2	0.0	89.7
	Number in catch	124	2,477	619	0	3,220
Male	Percent of sample	0.0	10.3	0.0	0.0	10.3
	Number in catch	0	372	0	0	372
Total	Percent of sample	3.4	79.3	17.2	0.0	100.0
	Number in catch	124	2,849	619	0	3,592
	Standard error	124	275	256	0	
<b><u>All Districts Combined</u></b>						
Strata Combined:	06/06 - 08/21					
Sampling dates:	06/08 - 08/20					
Sample size:	2,866					
Female	Percent of sample	0.1	31.2	28.6	0.1	59.9
	Number in catch	435	215,019	197,610	479	413,543
Male	Percent of sample	0.2	19.4	20.3	0.2	40.0
	Number in catch	1,118	133,557	140,157	1,209	276,042
Total	Percent of sample	0.2	50.5	49.0	0.2	100.0
	Number in catch	1,553	348,577	338,042	1,688	689,859
	Standard error	1,167	7,138	7,079	682	

**Appendix F**  
**Salmon Escapements to Coastal Streams**  
**in Prince William Sound**

Appendix F.1. Daily escapement counts of sockeye, coho, pink, and chum salmon through Coghill River weir, 1993.

Date	Sockeye		Coho		Pink <sup>a</sup>		Chum	
	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative
06/04	0	0	0	0	0	0	0	0
06/05	0	0	0	0	0	0	0	0
06/06	0	0	0	0	0	0	0	0
06/07	0	0	0	0	0	0	0	0
06/08	0	0	0	0	0	0	0	0
06/09	0	0	0	0	0	0	0	0
06/10	8	8	0	0	0	0	0	0
06/11	0	8	0	0	0	0	0	0
06/12	1	9	0	0	0	0	0	0
06/13	2	11	0	0	0	0	0	0
06/14	9	20	0	0	0	0	0	0
06/15	1	21	0	0	0	0	0	0
06/16	1	22	0	0	0	0	0	0
06/17	10	32	0	0	0	0	0	0
06/18	3	35	0	0	0	0	0	0
06/19	6	41	0	0	0	0	0	0
06/20	17	58	0	0	0	0	0	0
06/21	4	62	0	0	0	0	0	0
06/22	16	78	0	0	0	0	0	0
06/23	19	97	0	0	0	0	0	0
06/24	10	107	0	0	0	0	0	0
06/25	21	128	0	0	0	0	0	0
06/26	38	166	0	0	0	0	0	0
06/27	17	183	0	0	0	0	0	0
06/28	27	210	0	0	0	0	0	0
06/29	38	248	0	0	0	0	0	0
06/30	62	310	0	0	0	0	0	0
07/01	57	367	0	0	1	1	0	0
07/02	88	455	0	0	0	1	0	0
07/03	119	574	0	0	3	4	1	1
07/04	55	629	0	0	1	5	0	1
07/05	51	680	0	0	0	5	0	1
07/06	37	717	0	0	0	5	0	1
07/07	42	759	0	0	0	5	0	1
07/08	133	892	0	0	3	8	0	1
07/09	62	954	0	0	2	10	0	1
07/10	389	1,343	0	0	16	26	0	1
07/11	883	2,226	0	0	55	81	0	1
07/12	715	2,941	0	0	90	171	0	1
07/13	314	3,255	0	0	65	236	0	1
07/14	345	3,600	0	0	103	339	2	3
07/15	404	4,004	0	0	107	446	0	3
07/16	152	4,156	0	0	48	494	0	3
07/17	259	4,415	0	0	199	693	0	3
07/18	352	4,767	0	0	258	951	6	9
07/19	270	5,037	0	0	183	1,134	3	12
07/20	182	5,219	0	0	131	1,265	0	12
07/21	183	5,402	0	0	85	1,350	0	12

-continued-

Date	Sockeye		Coho		Pink <sup>a</sup>		Chum	
	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative
07/22	119	5,521	0	0	53	1,403	0	12
07/23	155	5,676	0	0	70	1,473	0	12
07/24	343	6,019	0	0	461	1,934	4	16
07/25	299	6,318	1	1	206	2,140	6	22
07/26	296	6,614	0	1	232	2,372	1	23
07/27	242	6,856	0	1	149	2,521	1	24
07/28	84	6,940	0	1	172	2,693	1	25
07/29	229	7,169	0	1	316	3,009	1	26
07/30	160	7,329	0	1	270	3,279	1	27
07/31	329	7,658	1	2	683	3,962	1	28
08/01	248	7,906	3	5	380	4,342	1	29
08/02	188	8,094	4	9	402	4,744	1	30
08/03	57	8,151	1	10	159	4,903	1	31
08/04	140	8,291	3	13	266	5,169	3	34
08/05	126	8,417	3	16	265	5,434	2	36
08/06	157	8,574	2	18	436	5,870	2	38
08/07	132	8,706	0	18	329	6,199	1	39
08/08	116	8,822	0	18	505	6,704	1	40
08/09	53	8,875	1	19	345	7,049	0	40
08/10	96	8,971	1	20	351	7,400	1	41
08/11	61	9,032	0	20	265	7,665	0	41
08/12	4	9,036	0	20	162	7,827	0	41
08/13	196	9,232	1	21	233	8,060	1	42
		9,232		21		8,060		42

<sup>a</sup> Count may be incomplete. The Coghill weir is designed to prohibit the passage of sockeye salmon and because of their smaller size, some pink salmon are able to pass uncounted.

Appendix F.2. Daily escapement counts of sockeye, coho, pink, and chum salmon through the weir at the head of Eshamy Lagoon, 1993.

Date	Sockeye		Coho		Pink <sup>a</sup>		Chum	
	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative
06/28	33	33	0	0	0	0	0	0
06/29	2	35	0	0	0	0	0	0
06/30	9	44	0	0	0	0	0	0
07/01	6	50	0	0	0	0	0	0
07/02	67	117	0	0	0	0	0	0
07/03	2	119	0	0	0	0	0	0
07/04	0	119	0	0	0	0	0	0
07/05	0	119	0	0	0	0	0	0
07/06	0	119	0	0	0	0	0	0
07/07	6	125	0	0	0	0	0	0
07/08	0	125	0	0	0	0	0	0
07/09	0	125	0	0	0	0	0	0
07/10	7	132	0	0	0	0	0	0
07/11	181	313	0	0	0	0	0	0
07/12	117	430	0	0	0	0	0	0
07/13	1	431	0	0	0	0	0	0
07/14	1	432	0	0	0	0	0	0
07/15	23	455	0	0	0	0	0	0
07/16	4	459	0	0	0	0	0	0
07/17	6	465	0	0	0	0	0	0
07/18	0	465	0	0	0	0	0	0
07/19	0	465	0	0	0	0	0	0
07/20	0	465	0	0	0	0	0	0
07/21	0	465	0	0	0	0	0	0
07/22	1	466	0	0	0	0	0	0
07/23	240	706	0	0	0	0	0	0
07/24	225	931	0	0	1	1	0	0
07/25	381	1,312	0	0	1	2	0	0
07/26	826	2,138	0	0	1	3	2	2
07/27	147	2,285	0	0	2	5	1	3
07/28	287	2,572	0	0	1	6	0	3
07/29	42	2,614	0	0	0	6	0	3
07/30	710	3,324	0	0	1	7	0	3
07/31	120	3,444	0	0	1	8	0	3
08/01	37	3,481	0	0	0	8	0	3
08/02	407	3,888	0	0	1	9	1	4
08/03	75	3,963	1	1	1	10	0	4
08/04	188	4,151	0	1	4	14	1	5
08/05	85	4,236	0	1	5	19	0	5
08/06	85	4,321	0	1	2	21	1	6
08/07	289	4,610	0	1	2	23	0	6
08/08	146	4,756	0	1	5	28	0	6
08/09	254	5,010	0	1	7	35	0	6
08/10	658	5,668	0	1	30	65	0	6
08/11	640	6,308	0	1	52	117	0	6
08/12	253	6,561	0	1	35	152	0	6
08/13	430	6,991	0	1	22	174	0	6
08/14	2,977	9,968	3	4	270	444	0	6

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Date	Sockeye		Coho		Pink <sup>a</sup>		Chum	
	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative
08/15	3,019	12,987	8	12	95	539	0	6
08/16	3,714	16,701	2	14	101	640	1	7
08/17	4,898	21,599	15	29	164	804	0	7
08/18	3,008	24,607	9	38	156	960	0	7
08/19	3,557	28,164	11	49	161	1,121	2	9
08/20	4,401	32,565	16	65	203	1,324	0	9
08/21	7,296	39,861	14	79	267	1,591	0	9
08/22	943	40,804	0	79	208	1,799	0	9
08/23	437	41,241	1	80	170	1,969	0	9
08/24	168	41,409	0	80	86	2,055	0	9
08/25	112	41,521	0	80	74	2,129	0	9
08/26	138	41,659	2	82	56	2,185	0	9
08/27	20	41,679	0	82	43	2,228	0	9
08/28	89	41,768	0	82	85	2,313	0	9
08/29	119	41,887	1	83	322	2,635	0	9
08/30	162	42,049	3	86	193	2,828	0	9
08/31	107	42,156	0	86	90	2,918	0	9
09/01	73	42,229	0	86	80	2,998	0	9
09/02	163	42,392	3	89	129	3,127	0	9
09/03	111	42,503	2	91	140	3,267	0	9
09/04	113	42,616	0	91	50	3,317	0	9
09/05	51	42,667	0	91	44	3,361	0	9
09/06	141	42,808	1	92	45	3,406	0	9
09/07	71	42,879	0	92	29	3,435	0	9
09/08	14	42,893	0	92	0	3,435	0	9
		42,893		92		3,435		9

<sup>a</sup> Count may be incomplete. The Eshamy weir is designed to prohibit the passage of sockeye salmon and because of their smaller size, some pink salmon are able to pass uncounted.

Appendix F.3. Aerial survey escapement counts of sockeye salmon from selected systems, Prince William Sound, 1993.

Stream Name	Stream Number	District-Subdistrict	Week Ending Date *												
			03 Jul	10 Jul	17 Jul	24 Jul	31 Jul	07 Aug	14 Aug	21 Aug	28 Aug	04 Sep	11 Sep	18 Sep	25 Sep
Robe River	138	221-61	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Billy's Hole	218	222-10	250	0	400	700	2,600	210	1,340	100	50	3	NS	0	NS
Cowpen Lake	242	229-10	NS	0	25	0	0	0	100	50	NS	0	NS	0	NS
Miners Lake	244	229-10	NS	75	1,800	NS	2,300	4,600	2,300	175	NS	400	NS	30	NS
Red Lake	300	223-20	NS	0	0	0	0	30	0	0	0	0	NS	0	NS
Golden Lagoon <sup>b</sup>	310	223-30	NS	0	0	0	0	0	0	0	NS	0	NS	0	NS
Halferty Creek	454	224-10	NS	0	0	0	0	125	0	0	0	50	NS	6	0
Cochrane Creek	461	224-10	NS	0	0	0	0	4	0	20	20	20	NS	10	NS
Shrode Lake	476	224-30	NS	95	550	50	1,375	775	0	800	NS	220	NS	140	NS
Cutross Creek	479	224-30	NS	0	0	0	0	0	0	0	NS	0	NS	0	NS
Jackpot Lakes	608	226-20	NS	680	2,120	1,200	720	600	2,000	3,500	745	800	NS	70	NS
Bainbridge	630	226-20	NS	120	25	800	300	200	1,500	600	NS	200	NS	25	5
Point Creek	702	227-10	NS	0	0	0	0	0	0	0	0	NS	0	0	NS
Cabin Creek	747	227-20	NS	NS	NS	0	0	0	10	0	1	NS	0	10	NS
Total			250	970	4,920	2,750	7,295	6,544	7,250	5,245	816	1,693	0	291	5

\* Counts contained in this table are obtained in conjunction with the regular pink and chum aerial survey program. Many of these sockeye systems are surveyed by air and thus the counts do not necessarily represent total live abundance at a particular time.

<sup>b</sup> Believed to be returns from Main Bay Hatchery sockeye (Coghill Lake stock) released into Davis Lake.

Appendix F.4. Weekly aerial survey estimates of the escapement of live pink salmon to selected streams in Prince William Sound, 1993.

District	Stream Name	Nunab Name	Week Ending Date																Adjusted Total							
			05-Jun	12-Jun	19-Jun	26-Jun	03-Jul	10-Jul	17-Jul	24-Jul	31-Jul	07-Aug	14-Aug	21-Aug	28-Aug	04-Sep	11-Sep	18-Sep		25-Sep						
Eastern	2 Harney Creek	NS*	NS	NS	NS	NS	NS	NS	NS	NS	75	NS	NS	1,200	NS	NS	NS	850	250	NS	0	NS	2,389			
	5 Eccles Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0	NS	0	NS	0	NS	300	75	NS	0	NS	300			
	11 Humpy Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	40	800	< 1,300	2,750	< NS	2,800	NS	2,100	800	NS	30	NS	5,949			
	221-10 Orcas Inlet	NS	NS	NS	NS	NS	NS	NS	NS	NS	40	875	1,300	3,950	0	2,800	NS	3,250	1,125	NS	30	NS	8,638			
	19 Twin Lakes Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	0	0	0	0	0	0	NS	200	200	NS	0	NS	280			
	20 Spring Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	0	0	0	0	0	0	NS	900	500	150	NS	5	NS	1,973		
	21 Rogae Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	0	0	0	0	0	0	NS	20	NS	1,800	900	NS	20	NS	1,800	
	23 Chase Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	0	0	0	0	0	0	NS	NS	NS	NS	NS	40	NS	4,486		
	35 Koppin Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	0	0	0	0	0	0	NS	10,000	10,000	7,400	NS	1,800	200	NS	24,646	
	36 Sheep River	NS	NS	NS	NS	NS	NS	NS	NS	NS	0	0	0	0	0	0	NS	5,000	15,000	9,500	NS	3,400	400	NS	39,480	
37 Allen Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0	0	0	0	0	0	1,200	1,500	300	NS	10	NS	2,026			
221-20 Simpson B/ Sheep B.	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0	0	0	0	0	0	33,140	13,200	29,000	18,450	NS	5,275	600	NS	74,691	
41 Pass Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	800	100	NS	0	NS	1,189			
43 Placau Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	3,600	3,800	300	NS	2	NS	5,861		
46 Comfort Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	7,600	1,200	NS	10	NS	11,813			
48 Beartrap River	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	6,500	8,000	2,400	NS	120	NS	17,508		
49 Calanct Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	325	300	200	NS	3	NS	325		
51 Olsen Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	10,000	3,800	NS	80	NS	27,183		
52 Control Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	6,800	8,000	4,800	NS	20	NS	20,485		
54 Carleton Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	1,100	NS	3,200	250	NS	0	NS	3,677	
56 St. Malheur Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	3,100	3,700	300	NS	400	NS	50	NS	10,058
221-30 Port Graving	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	19,525	44,500	16,050	NS	635	50	NS	98,299	
71 Two Moon Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0	0	20	NS	0	NS	20	NS	10
73 Tundra Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0	0	0	NS	0	NS	10	NS	0
76 Irish Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	3,500	NS	2,000	1,900	NS	100	0	NS	11,300
80 Whalen Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	3,000	10	1,200	500	NS	50	NS	5,839	
83 Keta Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	100	NS	NS	NS	NS	400	0	NS	1,279
87 Sunny River	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	3,200	NS	1,000	NS	NS	100	0	NS	7,237
88 Short Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	120	NS	400	NS	NS	0	NS	1,069	
89 Fish Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	4,200	1,500	3,900	1,900	NS	350	0	NS	11,970
92 Shale Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0	410	500	350	NS	20	NS	660	
93 Kirkwood Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0	400	700	400	NS	5	NS	1,253	
94 Rock Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	1,700	0	200	200	NS	0	NS	261	
99 Lagoon Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	1,100	4,000	2,600	NS	200	0	NS	8,281	
221-40 Port Fishapo	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	3,420	13,900	7,280	NS	1,225	0	NS	49,179	
106 Gladough Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	300	150	700	400	NS	0	NS	1,319	
107 Black Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0	250	450	400	NS	20	NS	581	
114 Turner Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	20	NS	350	600	NS	0	NS	600	
115 Millard Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	2,400	NS	2,200	3,700	NS	0	NS	8,880	
116 Duck River	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	10,000	NS	NS	NS	NS	NS	NS	10,000	
117 Indian Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	3,000	1,800	1,500	NS	50	NS	NS	8,291	
120 Donaldson Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	900	600	500	NS	0	NS	NS	988	
121 Levitakoff Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	1,800	NS	NS	0	NS	NS	3,646	
122 No Name Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0	NS	NS	0	NS	NS	50	
123 Gregoroff Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	1,600	NS	1,500	NS	NS	0	NS	4,653	
127 Naomoff River	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	1,400	NS	NS	0	NS	NS	6,249	
129 Vlasoff Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0	NS	NS	4,606	
132 Twin Falls Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	3,800	NS	1,500	NS	140	NS	NS	10,028	
153 Sellar Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	7,000	NS	6,000	3,600	NS	20	NS	16,174	
221-50 Valdez Arm	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	3,400	18,300	10,900	NS	230	NS	NS	75,965	
131 Gorge Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	844	
133 Sawmill Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	1,735	
137 Lowe River	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0	
143 Siwash Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	4,283	
145 Crooked Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	607	
148 Mineral Flare	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	486	
221-61 Port Valdez	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	7,955	
Eastern District total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	118,523	39,344	108,930	53,805	NS	7,395	650	NS	314,727

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District	Stream Number	Name	Week Ending Date													Adjusted Total
			05-Jan	12-Jan	19-Jan	26-Jan	03-Feb	10-Feb	17-Feb	24-Feb	03-Mar	10-Mar	17-Mar	24-Mar	31-Mar	
Northwestern	435	Logging Camp Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	64
	450	Tobacco Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	2,143
	451	Blackstone Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	2,282
	454	Hallerty Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	3,420
	455	Paulson Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	1,499
	458	Parks Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	3,887
	461	Cochrane Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	1,316
	469	Wickett Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	2,278
	224-10	Passage Canal/Cochran	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	17,909
	471	Narrows Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	150
	476	Shoals Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	3,903
	479	Culross Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	1,318
	224-30	Culross Passage	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	5,191
Northwestern District total	480	Mink Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	7,693
	484	E. Finger Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	1,560
	485	W. Finger Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	9,817
	493	Most Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	377
	495	Chimney Lagoon	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	1,100
	498	McClure Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	2,000
	224-40	Port Nellie Juan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	22,547
Northwestern District total			NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	43,847
Eahany	506	Loomis Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	350
	507	Gumbo Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	45
	508	Soft Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	50
	510	Eishanaky Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	1,380
	511	Eahany*	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	1,427
225-30 Eahany Bay			NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	3,171
Eahany District total			NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	9,348

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District	Stream Nmbe Name	Week Ending Date																	Adjusted Total	
		05-Jun	12-Jun	19-Jun	26-Jun	03-Jul	10-Jul	17-Jul	24-Jul	31-Jul	07-Aug	14-Aug	21-Aug	28-Aug	04-Sep	11-Sep	18-Sep	25-Sep		
Southwestern	601 Paddy Creek	NS	NS	NS	NS	NS	NS	0	0	10	0	0	0	0	NS	1,200	300	NS	5	NS 1,200
	602 Nickan Creek	NS	NS	NS	NS	NS	NS	0	0	0	0	0	0	0	1,100	1,500	400	NS	20	NS 1,500
	603 Ewan Creek	NS	NS	NS	NS	NS	NS	0	0	0	100	0	850	8,000	5,500	600	NS	50	NS 8,000	
	604 Etk Creek	NS	NS	NS	NS	NS	NS	0	0	500	1,200	1,200	750	1,900	2,000	800	NS	0	NS 3,051	
	608 Jagpot River	NS	NS	NS	NS	NS	NS	0	0	300	500	1,000	7,750	8,000	5,300	4,700	NS	60	NS 12,652	
	610 Kompokoff River	NS	NS	NS	NS	NS	NS	0	0	25	0	0	400	600	0	100	NS	0	NS 600	
	611 Jackson Bay #1	NS	NS	NS	NS	NS	NS	0	0	0	50	0	50	150	30	30	NS	0	NS 150	
	612 Jackson Bay #2	NS	NS	NS	NS	NS	NS	0	0	0	0	0	250	200	150	NS	0	NS 290		
	613 Jackson Creek	NS	NS	NS	NS	NS	NS	0	400	1,100	3,500	4,000	4,900	4,500	7,000	1,100	NS	40	NS 11,262	
	621 Totemoff Creek	NS	NS	NS	NS	NS	NS	0	0	300	0	500	0	700	2,500	400	NS	0	NS 2,500	
	623 Brizgaloff Creek	NS	NS	NS	NS	NS	NS	0	0	300	50	150	150	700	600	200	NS	30	NS 845	
	630 Bainbridge Creek	NS	NS	NS	NS	NS	NS	0	600	3,600	4,900	4,750	4,750	5,200	5,000	2,200	NS	175	0 11,266	
	632 Claw Creek	NS	NS	NS	NS	NS	NS	0	0	200	300	1,100	1,100	900	1,100	450	NS	100	20 1,938	
	633 Pablo Creek	NS	NS	NS	NS	NS	NS	0	0	1,500	2,000	750	750	1,500	1,500	1,000	NS	150	0 3,500	
	634 Whale Bay #1	NS	NS	NS	NS	NS	NS	0	0	0	0	0	600	400	500	10	NS	0	NS 732	
	636 Whale Creek	NS	NS	NS	NS	NS	NS	0	0	0	80	100	0	0	1,500	600	700	NS	11	NS 1,500
226-20 Chenequa Is/Dangerous I		NS	NS	NS	NS	NS	NS	0	400	2,010	10,805	13,650	22,750	34,700	34,550	13,140	NS	641	20 60,986	
226-30 East Knight Is.		NS	NS	NS	NS	NS	NS	0	0	0	2,000	1,300	3,250	4,300	3,500	4,500	NS	250	0 9,454	
226-30 East Knight Is.		NS	NS	NS	NS	NS	NS	0	0	0	200	300	680	1,500	1,600	1,600	NS	100	0 2,866	
655 Johnson Creek	NS	NS	NS	NS	NS	NS	NS	0	0	0	0	0	400	1,200	300	1,100	NS	500	0 1,703	
656 Halverson Creek	NS	NS	NS	NS	NS	NS	NS	15	0	0	200	300	680	1,500	1,600	1,600	NS	100	0 2,866	
665 Bjome Creek	NS	NS	NS	NS	NS	NS	NS	0	0	0	0	0	0	100	500	500	NS	75	NS 631	
666 O'Brien Creek	NS	NS	NS	NS	NS	NS	NS	0	0	0	0	0	0	20	130	400	NS	0	NS 525	
670 Montgomery Creek	NS	NS	NS	NS	NS	NS	NS	0	0	0	0	0	0	20	0	150	NS	0	NS 150	
672 Latouche Island	NS	NS	NS	NS	NS	NS	NS	0	0	0	0	0	37	200	1,400	1,300	NS	40	NS 1,784	
673 Falls Creek	NS	NS	NS	NS	NS	NS	NS	0	0	60	500	1,000	1,000	NS	2,200	1,000	NS	500	0 3,495	
676 Horseshoe Creek	NS	NS	NS	NS	NS	NS	NS	0	0	25	100	1,250	1,250	1,000	1,100	400	NS	100	NS 1,934	
677 Haylen Creek	NS	NS	NS	NS	NS	NS	NS	0	0	0	5	275	4,840	800	1,300	800	NS	0	NS 1,645	
226-40 Bainbridge/Latouche Pa		NS	NS	NS	NS	NS	NS	15	0	0	285	905	4,142	4,840	8,530	7,250	NS	1,315	0 14,733	
653 Hog Creek	NS	NS	NS	NS	NS	NS	NS	0	0	600	6,000	3,900	6,200	7,300	5,700	2,000	NS	350	90 13,400	
226-50 Port Bainbridge	NS	NS	NS	NS	NS	NS	NS	0	0	600	6,000	3,900	6,200	7,300	5,700	2,000	NS	350	90 13,400	
Southwestern District total		NS	NS	NS	NS	NS	NS	15	400	2,610	19,050	19,755	36,342	51,140	52,280	26,890	NS	2,556	110 98,573	

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District	Stream Number	Stream Name	Week Ending Date																	Adjusted Total					
			05-Jun	12-Jun	19-Jun	26-Jun	03-Jul	10-Jul	17-Jul	24-Jul	31-Jul	07-Aug	14-Aug	21-Aug	28-Aug	04-Sep	11-Sep	18-Sep	25-Sep						
Montague	702	Point Creek	NS	NS	NS	NS	NS	NS	NS	NS	0	0	0	412	<	400	1,000	NS	650	60	NS	1,519			
	703	Clam Beach Creek	NS	NS	NS	NS	NS	NS	NS	NS	0	45	0	700	<	2,000	2,600	NS	1,020	100	NS	3,496			
	707	MacLeod Creek	NS	NS	NS	NS	NS	NS	NS	NS	0	725	600	3,550	<	11,900	11,900	NS	900	70	NS	14,239			
	710	Hanning Creek	NS	NS	NS	NS	NS	NS	NS	NS	30	255	1,200	3,100	<	3,000	400	NS	950	230	10	4,065			
	711	Quadra Creek	NS	NS	NS	NS	NS	NS	NS	2,200	3,810	3,000	7,225	<	NS	5,400	NS	1,500	150	40	NS	13,684			
	717	Montague Island #1	NS	NS	NS	NS	NS	NS	NS	NS	0	585	400	3,850	<	4,400	4,900	NS	300	60	NS	7,257			
	718	Montague Island #2	NS	NS	NS	NS	NS	NS	NS	NS	0	350	600	1,700	<	2,000	1,800	NS	120	15	NS	3,083			
	719	Montague Island #3	NS	NS	NS	NS	NS	NS	NS	NS	300	900	0	2,850	<	2,500	1,000	NS	200	0	NS	3,649			
	722	Montague Island #4	NS	NS	NS	NS	NS	NS	NS	NS	0	0	0	75	<	NS	300	NS	40	0	NS	304			
	724	Montague Island #5	NS	NS	NS	NS	NS	NS	NS	NS	0	0	0	0	<	150	600	NS	130	0	NS	600			
	725	Montague Island #6	NS	NS	NS	NS	NS	NS	NS	NS	20	0	0	425	<	3,000	2,700	NS	450	3	NS	3,295			
	726	Montague Creek	NS	NS	NS	NS	NS	NS	NS	NS	0	0	0	10	<	NS	400	NS	0	0	NS	400			
	738	Russell Creek	NS	NS	NS	NS	NS	NS	NS	NS	100	25	160	415	<	1,400	1,300	NS	450	75	NS	1,983			
	739	Swamp Creek	NS	NS	NS	NS	NS	NS	NS	NS	3,900	3,400	3,400	7,050	<	9,200	8,800	NS	2,400	400	50	16,683			
	740	Kelaz Creek	NS	NS	NS	NS	NS	NS	NS	NS	0	300	400	900	<	10,000	3,900	NS	800	110	20	10,000			
	741	Chalmers River	NS	NS	NS	NS	NS	NS	NS	NS	400	2,050	1,200	6,150	<	3,000	4,000	NS	550	130	0	8,289			
	227-10	Montague Strait	NS	NS	NS	NS	NS	NS	NS	NS	3,050	12,345	11,860	38,412	<	52,050	51,000	NS	10,660	1,403	120	92,546			
	744	Wilby Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	0	0	50	300	<	2,600	3,600	NS	350	0	NS	3,609		
	745	Wild Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	0	85	500	2,250	<	3,800	3,500	NS	425	20	NS	5,114		
	746	Schuman Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	0	0	25	125	<	1,600	3,000	NS	550	30	NS	3,000		
	747	Cabin Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	100	500	2,400	5,050	<	NS	9,700	NS	1,350	50	NS	12,635		
	748	Glinour Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	0	0	20	0	<	400	600	NS	250	0	NS	713		
	749	Shad Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	0	0	400	50	<	2,500	3,900	NS	700	10	NS	4,032		
	752	Stockdale Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	0	0	1,000	1,300	<	6,400	6,000	NS	850	1	NS	7,552		
	753	Stockdale Bay	NS	NS	NS	NS	NS	NS	NS	NS	NS	0	0	0	25	<	500	1,400	NS	250	0	NS	1,400		
	754	Dry Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	0	0	0	212	<	500	300	NS	300	0	NS	697		
	758	Rocky Bay Head	NS	NS	NS	NS	NS	NS	NS	NS	NS	0	0	25	37	<	800	3,000	NS	800	20	NS	3,000		
759	Rocky Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	20	0	0	35	<	NS	5,300	NS	600	2	NS	5,300			
766	Carr Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	0	0	0	0	<	300	350	NS	100	0	NS	399			
770	Udall Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	0	0	0	0	<	400	450	NS	260	40	NS	825			
771	McKenna Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	0	0	100	125	<	250	<	600	400	NS	120	1	NS	657	
774	Rosawog Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	0	0	40	200	<	600	400	NS	500	20	NS	1,749			
775	Fauze Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	0	0	0	275	<	1,400	1,200	NS	350	2	NS	722			
788	Green Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	0	0	0	10	<	200	600	NS	350	2	NS	722			
227-20	Green Island	NS	NS	NS	NS	NS	NS	NS	NS	NS	0	0	0	225	<	NS	700	400	NS	400	NS	834			
Montague District total			NS	NS	NS	NS	NS	NS	NS	NS	0	0	0	10,344	<	22,000	44,000	400	7,755	196	NS	57,238			
Montague District total			NS	NS	NS	NS	NS	NS	NS	NS	0	0	0	3,170	<	13,030	16,445	48,735	74,050	95,000	400	18,415	1,599	120	144,784

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Appendix F.4. (Page 6 of 6).

District	Stream Number	Name	Week Ending Date																	Adjusted Total
			05-Jun	12-Jun	19-Jun	26-Jun	03-Jul	10-Jul	17-Jul	24-Jul	31-Jul	07-Aug	14-Aug	21-Aug	28-Aug	04-Sep	11-Sep	18-Sep	25-Sep	
Southeastern	863	Orca Creek	NS	NS	NS	NS	NS	NS	0	2,200	2,400	1,500	200	NS	1,400	NS	300	0	NS	3,963
	228-10	Orca In/E. Hawkins	NS	NS	NS	NS	NS	NS	0	2,200	2,400	1,500	200	NS	1,400	NS	300	0	NS	3,963
	833	Bates Creek	NS	NS	NS	NS	NS	NS	0	0	NS	0	0	NS	900	NS	50	0	NS	900
	834	Hardy Creek	NS	NS	NS	NS	NS	100	400	3,200	NS	7,800	12,100	NS	4,600	NS	400	0	NS	20,351
	835	Scott Creek	NS	NS	NS	NS	NS	NS	125	< 500	NS	5,400	7,800	NS	3,500	NS	150	0	NS	13,076
	836	Dan's Creek	NS	NS	NS	NS	NS	NS	0	100	NS	NS	NS	NS	5,500	NS	100	0	NS	5,737
	837	Widgeon Creek	NS	NS	NS	NS	NS	NS	0	0	NS	NS	NS	NS	1,300	NS	15	20	NS	1,300
	839	Goose Creek	NS	NS	NS	NS	NS	NS	0	NS	NS	600	NS	NS	1,900	NS	40	0	NS	2,089
	228-20	Hawkins Cutoff	NS	NS	NS	NS	NS	100	525	3,800	NS	13,800	19,900	NS	17,700	NS	755	20	NS	43,453
	844	Makarka Creek	NS	NS	NS	NS	NS	NS	10	NS	NS	2,000	1,300	NS	NS	NS	800	0	NS	7,411
	847	Hawkins Creek	NS	NS	NS	NS	NS	NS	0	125	2,000	1,500	1,600	NS	NS	NS	600	0	NS	7,102
	849	Rollins Creek	NS	NS	NS	NS	NS	NS	0	0	120	700	300	NS	2,100	NS	200	0	NS	2,178
	850	Canoe Creek	NS	NS	NS	NS	NS	NS	0	500	1,700	2,300	1,300	NS	4,000	NS	300	0	NS	5,709
	851	Zillesenoff Creek	NS	NS	NS	NS	NS	NS	0	50	0	100	50	NS	1,400	NS	300	0	NS	1,400
	856	W. Lagoon Creek	NS	NS	NS	NS	NS	NS	0	1,100	400	300	900	NS	2,800	NS	150	0	NS	3,420
	857	E. Lagoon Creek	NS	NS	NS	NS	NS	NS	0	300	0	250	100	NS	700	NS	250	0	NS	979
	858	N. Lagoon Creek	NS	NS	NS	NS	NS	NS	400	200	100	150	250	NS	400	NS	300	0	NS	996
	861	Bernard Creek	NS	NS	NS	NS	NS	NS	0	800	2,200	1,500	1,300	NS	5,000	NS	400	0	NS	6,586
	862	Clamdiggers Creek	NS	NS	NS	NS	NS	NS	0	50	900	400	700	NS	3,000	NS	200	0	NS	3,319
	228-30	N. Hawkins/Canoe Past	NS	NS	NS	NS	NS	NS	410	3,125	7,420	9,200	7,800	NS	19,400	NS	3,500	0	NS	39,100
	827	Captain Creek	NS	NS	NS	NS	NS	NS	0	0	500	300	400	NS	4,500	NS	800	0	NS	4,500
	828	Cook Creek	NS	NS	NS	NS	NS	NS	0	900	6,000	10,400	13,100	NS	10,000	NS	1,300	10	NS	21,904
	829	King Creek	NS	NS	NS	NS	NS	NS	0	0	100	200	200	NS	900	NS	900	0	NS	1,557
	831	Double Creek	NS	NS	NS	NS	NS	NS	0	60	NS	1,900	2,800	NS	3,400	NS	400	0	NS	6,319
	228-40	Double Bay	NS	NS	NS	NS	NS	NS	0	960	6,600	12,800	16,500	NS	18,800	NS	3,400	10	NS	34,280
	817	Deer Creek	NS	NS	NS	NS	NS	NS	0	400	3,000	5,100	3,300	NS	5,700	NS	1,400	20	NS	10,308
	818	Juania Creek	NS	NS	NS	NS	NS	NS	500	1,300	5,200	3,800	6,900	NS	8,800	NS	3,200	150	NS	16,786
	821	Brown Bear Creek	NS	NS	NS	NS	NS	NS	0	6,600	4,000	2,700	2,900	NS	6,500	NS	600	50	NS	11,955
	228-50	Johnstone Point	NS	NS	NS	NS	NS	NS	500	8,300	12,200	11,600	13,100	NS	21,000	NS	5,200	220	NS	39,049
	805	Port Elches - S. Shore	NS	NS	NS	NS	NS	NS	0	0	0	0	250	NS	600	NS	50	0	NS	611
	806	Dog Salmon Creek	NS	NS	NS	NS	NS	NS	0	0	0	1,400	170	NS	3,000	NS	450	107	NS	3,222
	807	Beaver Creek	NS	NS	NS	NS	NS	NS	0	0	300	2	75	NS	5,500	NS	125	0	NS	5,500
	810	Garden Creek	NS	NS	NS	NS	NS	NS	0	0	0	2,800	2,700	NS	5,200	NS	600	30	NS	6,749
	811	Elches Creek	NS	NS	NS	NS	NS	NS	0	200	1,700	0	0	NS	1,425	NS	1,200	0	NS	2,753
	812	Nuchek Creek	NS	NS	NS	NS	NS	NS	0	16,000	22,800	24,000	27,000	NS	18,000	NS	1,400	245	0	53,052
	815	Constantine Creek	NS	NS	NS	NS	NS	NS	200	25,000	26,000	31,000	38,200	NS	30,400	NS	11,700	875	50	81,361
	228-60	Port Elches	NS	NS	NS	NS	NS	NS	200	41,200	50,800	59,202	68,395	NS	64,125	NS	15,525	1,257	50	155,248
Southeastern District total			NS	NS	NS	NS	NS	100	1,635	59,585	79,420	108,102	125,895	NS	142,425	NS	28,680	1,507	50	315,093
TOTAL OF 9 DISTRICTS			0	0	0	0	730	10,567	17,203	151,476	225,681	349,556	390,966	188,958	450,228	123,650	47,095	21,668	1,215	1,065,640

\* NS for No Survey.

\* &lt; for more than one survey in a week.

Appendix F.5. Weekly aerial survey estimates of the escapement of live chum salmon to selected streams in Prince William Sound, 1993.

District	Stream	Number	Name	Week Ending Date																	Adjusted Total
				05-Jun	12-Jun	19-Jun	26-Jun	03-Jul	10-Jul	17-Jul	24-Jul	31-Jul	07-Aug	14-Aug	21-Aug	28-Aug	04-Sep	11-Sep	18-Sep	25-Sep	
Eastern	2 Harney Creek	NS*	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	984
	5 Eccles Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0
	11 Hungry Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0
	221-10 Ora Inlet	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	984
	19 Twin Lakes Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0
	20 Spring Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0
	21 Rogue Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	25
	23 Chase Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	1,307
	35 Koppin Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0
	36 Sheep River	0 <	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,800
37 Allen Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0	
221-20 Simpson B/Sheep B.	0	0	0	400	50	1,720	580	1,075	2,200	875	1,800	1,000	3,000	500	NS	0	0	NS	NS	20	
41 Pass Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0	
43 Plateau Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	1,800	
46 Comfort Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0	
48 Beartrap River	0 <	0	50	700	600	< 3,000	2,250	< 3,500	< 1,500	< 3,000	1,000	200	1,000	400	NS	0	NS	NS	NS	300	
49 Calaract Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	6,670	
51 Olsen Creek	0 <	0	2	30	225	< 900	850	< 2,000	< 2,250	< 600	2,000	NS	0	0	0	0	NS	NS	NS	0	
52 Control Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	10	
54 Carlin Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	779	
56 St. Madeweia Creek	0 <	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0	
221-30 Port Gravina	0	0	52	730	825	4,100	5,500	5,950	4,600	4,350	3,000	200	1,000	400	NS	10	0	NS	NS	13,137	
71 Two Moon Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0	
73 Tundra Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0	
76 Inish Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0	
80 Whalen Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0	
83 Kete Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	450	
87 Sunny River	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	937	
88 Short Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	70	
89 Fish Creek	0	0	0	10	30	< 150	250	< 1,000	< 1,050	< 1,000	0	0	0	0	0	0	NS	NS	NS	1,408	
92 Shale Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0	
93 Kirkwood Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0	
94 Rock Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0	
99 Lagoon Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0	
221-40 Port Fidlago	0	0	0	10	80	180	442	2,200	3,475	1,300	1,100	900	2,100	400	NS	650	225	NS	NS	2,464	
106 Gladhough Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	6,531	
107 Black Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0	
114 Turner Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0	
115 Millard Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0	
116 Duck River	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	300	
117 Indian Creek	0	0	8	30	700	< 500	550	< 1,250	< 1,050	< 1,000	2,000	0	200	0	NS	NS	NS	NS	NS	4,759	
120 Donaldson Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	2,098	
121 Lewhakoff Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0	
122 No Name Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	333	
123 Gregotoff Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0	
127 Naomoff River	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	946	
129 Vlasoff Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	3,838	
132 Twin Falls Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	1,177	
133 Stellar Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	2,488	
221-50 Valdez Arm	0	0	0	20	185	< 100	1,150	< 100	< 750	< 0	NS	0	NS	0	NS	0	NS	NS	NS	1,150	
131 Gorge Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	17,089	
133 Sawmill Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	480	
137 Lowe River	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	621	
143 Siwash Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS					

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District	Stream Name	Week Ending Date																	Adjusted Total		
		05-Jun	12-Jun	19-Jun	26-Jun	03-Jul	10-Jul	17-Jul	24-Jul	31-Jul	07-Aug	14-Aug	21-Aug	28-Aug	04-Sep	11-Sep	18-Sep	25-Sep			
Northern	204 Heather Bay	NS	NS	NS	NS	NS	NS	NS	0	0	0	0	0	0	NS	0	NS	NS	NS	0	
	208 Graile Cove	NS	NS	NS	NS	NS	NS	NS	0	0	0	0	0	0	NS	0	NS	0	NS	0	
	209 Useless Creek	NS	NS	NS	NS	NS	NS	NS	0	0	0	0	0	0	NS	0	NS	0	NS	0	
	210 Blf Creek	NS	NS	NS	NS	NS	NS	NS	0	0	0	0	0	0	NS	0	NS	0	NS	0	
	213 Branch Mark Creek	NS	NS	NS	NS	NS	NS	NS	0	0	0	0	0	0	NS	0	NS	0	NS	0	
	214 Long Creek	0	0	0	0	130	650	625	4750	2,000	2,200	1,000	NS	100	0	NS	0	NS	0	4750	
	216 Vanishing Creek	0	0	0	0	3	10	250	300	550	750	1,800	NS	300	0	NS	0	NS	0	1,800	
	217 Spring Creek	NS	NS	NS	NS	NS	NS	NS	0	0	0	0	0	NS	0	500	NS	0	NS	500	
	218 Billy's Creek	NS	NS	NS	NS	NS	NS	NS	0	0	0	0	0	NS	0	0	NS	0	NS	0	
	221 Eichelberg Creek	NS	NS	NS	NS	NS	NS	NS	0	0	0	0	0	0	0	0	NS	0	NS	0	
	222-10 Columbia R/Long B.	0	0	0	0	133	660	875	5,050	2,550	2,950	2,800	0	400	500	NS	0	NS	0	7,950	
	Unakvik	224 Backyard Creek	NS	NS	NS	NS	NS	NS	NS	0	0	0	0	0	0	0	NS	0	NS	0	0
227 Graile Creek		NS	NS	NS	NS	NS	NS	NS	0	0	0	0	0	0	0	NS	0	NS	0	0	
229 Cedar Creek		NS	NS	NS	NS	NS	NS	NS	0	0	100	0	0	0	0	NS	0	NS	0	100	
232 Delta Creek		NS	NS	NS	NS	NS	NS	NS	0	0	0	5	0	0	0	NS	NS	NS	5	0	
233 Suplus Creek		NS	NS	NS	NS	NS	NS	NS	0	0	0	0	0	0	0	NS	NS	NS	0	0	
234 Wells River		0	0	15	20	210	1,500	1,500	6,750	2,250	2,000	2,000	0	500	0	NS	0	NS	0	6,750	
257 Complex Creek #1		NS	NS	NS	NS	NS	NS	NS	0	NS	0	NS	0	NS	NS	NS	NS	NS	8	0	
12565 Complex Creek #2		NS	NS	NS	NS	NS	NS	NS	0	NS	0	NS	0	NS	NS	NS	NS	NS	0	2,031	
258 Williamsa Creek		NS	NS	NS	NS	NS	NS	NS	0	0	300	800	500	NS	NS	NS	NS	NS	0	0	
263 Waterfall Creek		NS	NS	NS	NS	NS	NS	NS	0	NS	0	12	150	0	NS	0	150	0	0	150	
264 Siwash River		NS	NS	NS	NS	NS	NS	NS	0	NS	NS	100	537	0	725	1,600	NS	0	0	2,093	
265 Unakvik Creek		NS	NS	NS	NS	NS	NS	NS	0	0	0	0	0	0	NS	0	NS	0	NS	0	
222-20 Wells B/Unakvik Inlet	0	0	15	20	210	1,500	1,500	6,850	2,755	3,349	2,700	725	500	1,600	NS	0	NS	0	11,137		
Coghill	273 Schloppe Creek	NS	NS	NS	NS	NS	NS	NS	0	0	0	0	100	0	NS	0	NS	0	NS	100	
	276 Black Bear Creek	NS	NS	NS	NS	NS	NS	NS	0	0	0	0	37	0	NS	0	NS	0	NS	37	
	277 Dead Creek	NS	NS	NS	NS	NS	NS	NS	0	0	0	0	0	0	NS	0	NS	0	NS	0	
	278 Cornback Creek	NS	NS	NS	NS	NS	NS	NS	0	0	0	0	0	0	NS	0	NS	0	NS	0	
	279 Canyon Creek	NS	NS	NS	NS	NS	NS	NS	0	0	0	100	0	100	NS	800	NS	0	0	800	
	282 Good Creek	NS	NS	NS	NS	NS	NS	NS	0	0	75	50	0	0	NS	100	NS	0	NS	141	
	283 Bad Creek	NS	NS	NS	NS	NS	NS	NS	0	0	0	0	0	0	NS	0	NS	0	NS	0	
	289 Dendison Creek	NS	NS	NS	NS	NS	NS	NS	0	0	75	287	0	100	NS	900	NS	0	0	1,078	
	222-30 Eagle Bay	NS	NS	NS	NS	NS	NS	NS	0	0	75	287	0	100	NS	900	NS	0	0	1,078	
	Northern District total	0	0	15	20	343	2,160	2,375	11,900	5,380	6,586	5,500	825	900	3,000	NS	0	NS	0	19,265	
	Unakvik	242 Cowpen Creek	NS	NS	NS	NS	NS	NS	NS	0	NS	0	0	0	0	NS	0	NS	0	NS	0
		229-10 Upper Unakvik Inlet	NS	NS	NS	NS	NS	NS	NS	0	NS	0	0	0	0	NS	0	NS	0	NS	0
Unakvik District total	NS	NS	NS	NS	NS	NS	NS	NS	0	NS	0	0	0	0	NS	0	NS	0	NS	0	
	414 Harrison Creek	NS	NS	NS	NS	NS	NS	NS	0	0	0	100	0	NS	0	NS	0	NS	0	100	
Coghill	417 Hobo Creek	NS	NS	NS	NS	NS	NS	NS	0	NS	0	0	0	NS	0	NS	0	NS	0	NS	0
	421 Mill Creek	NS	NS	NS	NS	NS	NS	NS	0	NS	425	300	750	0	NS	500	NS	25	100	1,428	
	424 Old Creek	NS	NS	NS	NS	NS	NS	NS	0	1	0	0	125	0	NS	NS	0	NS	0	149	
	425 Hammer Creek	NS	NS	NS	NS	NS	NS	NS	0	0	10	250	0	NS	NS	0	NS	0	NS	250	
	428 Pirate Creek	NS	NS	NS	NS	NS	NS	NS	0	0	0	0	0	NS	NS	0	NS	0	NS	0	
	430 Mecham Creek	NS	NS	NS	NS	NS	NS	NS	0	125	0	0	200	NS	NS	0	NS	0	NS	519	
	432 Swanson Creek	NS	NS	NS	NS	NS	NS	NS	15	250	NS	0	2,000	NS	NS	800	NS	20	NS	2,101	
	223-10 W. side Port Wells	NS	NS	NS	NS	NS	NS	NS	0	16	800	310	1,225	NS	0	1,300	NS	45	100	4,747	
	303 Triple Creek	NS	NS	NS	NS	NS	NS	NS	0	0	0	0	0	0	NS	0	NS	0	NS	0	
	307 Village Creek	NS	NS	NS	NS	NS	NS	NS	0	0	0	0	0	0	NS	0	NS	0	NS	0	
	223-20 Father Passage	NS	NS	NS	NS	NS	NS	NS	0	0	0	0	0	0	NS	0	NS	0	NS	0	
	Coghill District total	310 Golden Lagoon	NS	NS	NS	NS	NS	NS	NS	0	0	0	0	0	NS	NS	0	NS	NS	NS	0
314 Avery River		NS	NS	NS	NS	NS	NS	NS	0	0	0	0	0	NS	NS	0	NS	NS	NS	0	
322 Coghill River		NS	NS	NS	NS	NS	NS	NS	0	0	0	500	NS	2,500	NS	NS	NS	NS	NS	2,657	
223-30 College Pond		NS	NS	NS	NS	NS	NS	NS	0	0	0	500	0	2,500	NS	NS	0	NS	NS	2,657	
Coghill District total	NS	NS	NS	NS	NS	NS	NS	0	16	800	810	1,223	3,250	NS	1,300	NS	45	100	7,404		

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District	Stream Number	Name	Week Ending Date																	Adjusted Total		
			05-Jun	12-Jun	19-Jun	26-Jun	03-Jul	10-Jul	17-Jul	24-Jul	31-Jul	07-Aug	14-Aug	21-Aug	28-Aug	04-Sep	11-Sep	18-Sep	25-Sep			
Northwestern	435	Logging Camp Creek	NS	NS	NS	NS	NS	NS	0	0	0	0	0	0	NS	NS	0	NS	0	NS	0	
	450	Tebeikoff Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	1,500	1,400	NS	NS	0	NS	0	NS	0	
	451	Blackstone Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	700	0	NS	NS	0	NS	0	NS	1,891	
	454	Halfway Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	4,500	1,000	NS	NS	200	NS	0	NS	700	
	455	Poulson Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	800	0	NS	NS	0	NS	0	NS	4,993	
	458	Parks Creek	NS	NS	NS	NS	NS	NS	NS	0	30	250	NS	1,612	0	NS	NS	0	NS	0	NS	871
	461	Cochane Creek	NS	NS	NS	NS	NS	NS	NS	0	0	0	NS	10	0	NS	NS	0	NS	0	NS	1,612
	469	Wicket Creek	NS	NS	NS	NS	NS	NS	NS	0	0	0	0	0	0	NS	NS	0	NS	0	NS	50
	224-10	Passage Canal/Cochane	NS	NS	NS	NS	NS	NS	NS	0	30	2,250	0	9,247	2,450	NS	NS	200	NS	0	NS	125
	471	Narrows Creek	NS	NS	NS	NS	NS	NS	NS	0	0	0	0	0	0	NS	NS	0	NS	0	NS	0
Northwestern District total	476	Shoode Creek	NS	NS	NS	NS	NS	NS	0	0	0	0	0	0	NS	NS	0	NS	0	NS	0	
	479	Calrosa Creek	NS	NS	NS	NS	NS	NS	0	0	0	0	0	0	NS	NS	0	NS	0	NS	0	
	224-30	Calrosa Passage	NS	NS	NS	NS	NS	NS	0	0	0	0	0	0	NS	NS	0	NS	0	NS	0	
	480	Mink Creek	NS	NS	NS	NS	NS	NS	NS	0	120	500	3,000	1,250	0	NS	NS	0	NS	0	NS	3,000
	484	E. Finger Creek	NS	NS	NS	NS	NS	NS	NS	0	0	30	800	750	NS	NS	0	NS	0	NS	800	
	485	W. Finger Creek	NS	NS	NS	NS	NS	NS	NS	0	30	800	3,000	0	NS	NS	0	NS	0	NS	3,000	
	493	Most Creek	NS	NS	NS	NS	NS	NS	NS	0	0	0	0	150	0	NS	NS	0	NS	0	NS	150
	495	Chimewsky Lagoon	NS	NS	NS	NS	NS	NS	NS	0	0	0	500	175	0	NS	NS	0	NS	0	NS	500
	498	McClure Creek	NS	NS	NS	NS	NS	NS	NS	0	0	0	0	0	0	NS	NS	0	NS	0	NS	0
	224-40	Port Nellie Juan	NS	NS	NS	NS	NS	NS	NS	0	150	1,350	7,300	2,325	0	NS	NS	0	NS	0	NS	7,300
Ehany	506	Loonis Creek	NS	NS	NS	NS	NS	NS	0	180	3,380	2,300	11,972	2,450	NS	NS	0	NS	0	NS	17,692	
	507	Gumboot Creek	NS	NS	NS	NS	NS	NS	0	0	0	0	0	0	NS	NS	0	NS	0	NS	0	
	508	Soft Creek	NS	NS	NS	NS	NS	NS	0	0	0	0	0	0	NS	NS	0	NS	0	NS	0	
	510	Elishauky Creek	NS	NS	NS	NS	NS	NS	0	0	0	0	0	0	NS	NS	0	NS	0	NS	0	
	511	Ehany*	NS	NS	NS	NS	NS	NS	0	0	0	0	0	0	NS	NS	0	NS	0	NS	0	
	225-30	Ehany Bay	NS	NS	NS	NS	NS	NS	0	0	0	0	0	0	NS	NS	NS	NS	0	NS	0	
	Ehany District total	NS	NS	NS	NS	NS	NS	NS	0	0	0	0	0	0	NS	NS	0	NS	0	NS	0	

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District	Stream Number	Name	Week Ending Date										Adjusted							
			05-Jun	12-Jun	19-Jun	26-Jun	03-Jul	10-Jul	17-Jul	24-Jul	31-Jul	07-Aug	14-Aug	21-Aug	28-Aug	04-Sep	11-Sep	18-Sep	25-Sep	Total
Southwestern	601	Paddy Creek	NS	NS	NS	NS	NS	NS	0	0	0	0	0	0	NS	0	NS	0	NS	0
	602	Nacktan Creek	NS	NS	NS	NS	NS	NS	0	0	0	0	0	0	NS	0	NS	0	NS	0
	603	Ewan Creek	NS	NS	NS	NS	NS	NS	0	0	0	0	0	0	NS	0	NS	0	NS	0
	604	Erb Creek	NS	NS	NS	NS	NS	NS	0	0	0	0	0	0	NS	0	NS	0	NS	0
	608	Jackpot River	NS	NS	NS	NS	NS	NS	0	0	0	0	0	0	NS	0	NS	0	NS	0
	610	Komploff River	NS	NS	NS	NS	NS	NS	0	0	0	0	0	0	NS	0	NS	0	NS	0
	611	Jackpot Bay #1	NS	NS	NS	NS	NS	NS	0	0	0	0	0	0	NS	0	NS	0	NS	0
	612	Jackpot Bay #2	NS	NS	NS	NS	NS	NS	0	0	0	0	0	0	NS	0	NS	0	NS	0
	613	Jackson Creek	NS	NS	NS	NS	NS	NS	0	0	0	0	0	0	NS	0	NS	0	NS	0
	621	Toemloff Creek	NS	NS	NS	NS	NS	NS	0	0	0	0	0	0	NS	0	NS	0	NS	0
	623	Brizgaloff Creek	NS	NS	NS	NS	NS	NS	0	0	0	0	0	0	NS	0	NS	0	NS	0
	630	Bainbridge Creek	NS	NS	NS	NS	NS	NS	0	0	0	0	0	0	NS	0	NS	0	NS	0
	632	Claw Creek	NS	NS	NS	NS	NS	NS	0	0	0	0	0	0	NS	0	NS	0	NS	0
	633	Pablo Creek	NS	NS	NS	NS	NS	NS	0	0	0	0	0	0	NS	0	NS	0	NS	0
	634	Whale Bay #1	NS	NS	NS	NS	NS	NS	0	0	0	0	0	0	NS	0	NS	0	NS	0
226-20	Chetaga Is/Dangerous P.		NS	NS	NS	NS	NS	NS	0	0	0	0	0	0	NS	0	NS	0	NS	0
			NS	NS	NS	NS	NS	NS	0	0	0	0	0	0	NS	0	NS	0	NS	0
226-30	East Knight Is.		NS	NS	NS	NS	NS	NS	0	0	0	0	0	0	NS	0	NS	0	NS	0
			NS	NS	NS	NS	NS	NS	0	0	0	0	0	0	NS	0	NS	0	NS	0
	655	Johnson Creek	NS	NS	NS	NS	NS	NS	0	0	0	0	0	0	NS	0	NS	0	NS	0
	656	Halverson Creek	NS	NS	NS	NS	NS	NS	0	0	0	0	0	0	NS	0	NS	0	NS	0
	665	Bjorne Creek	NS	NS	NS	NS	NS	NS	0	0	0	0	0	0	NS	0	NS	0	NS	0
	666	O'Brien Creek	NS	NS	NS	NS	NS	NS	0	0	0	0	0	0	NS	0	NS	0	NS	0
	670	Montgomery Creek	NS	NS	NS	NS	NS	NS	0	0	0	0	0	0	NS	0	NS	0	NS	0
	672	Laouche Island	NS	NS	NS	NS	NS	NS	0	0	0	0	0	0	NS	0	NS	0	NS	0
	673	Falls Creek	NS	NS	NS	NS	NS	NS	0	0	0	0	0	0	NS	0	NS	0	NS	0
	676	Horseshoe Creek	NS	NS	NS	NS	NS	NS	0	0	0	0	0	0	NS	0	NS	0	NS	0
	677	Hayden Creek	NS	NS	NS	NS	NS	NS	0	0	0	0	0	0	NS	0	NS	0	NS	0
	226-40	Bainbridge/Laouche Pass		NS	NS	NS	NS	NS	NS	0	0	0	0	0	0	NS	0	NS	0	NS
			NS	NS	NS	NS	NS	NS	0	0	0	0	0	0	NS	0	NS	0	NS	0
653	Hogg Creek	NS	NS	NS	NS	NS	NS	NS	0	0	0	0	0	0	NS	0	NS	0	NS	0
226-50	Port Bainbridge		NS	NS	NS	NS	NS	NS	0	0	0	0	0	0	NS	0	NS	0	NS	0
			NS	NS	NS	NS	NS	NS	0	0	0	0	0	0	NS	0	NS	0	NS	0
Southwestern District total			NS	NS	NS	NS	NS	NS	0	0	0	0	0	0	NS	0	NS	0	NS	0
			NS	NS	NS	NS	NS	NS	0	0	0	0	0	0	NS	0	NS	0	NS	0
			NS	NS	NS	NS	NS	NS	0	0	0	0	0	0	NS	0	NS	0	NS	0

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District	Stream	Number	Name	Week Ending Date										Adjusted						
				05-Jun	12-Jun	19-Jun	26-Jun	03-Jul	10-Jul	17-Jul	24-Jul	31-Jul	07-Aug	14-Aug	21-Aug	28-Aug	04-Sep	11-Sep	18-Sep	25-Sep
Montague	702	Point Creek	NS	NS	NS	NS	NS	NS	NS	NS	0	0	0	0	0	0	NS	0	0	0
	703	Clam Branch Creek	NS	NS	NS	NS	NS	NS	NS	NS	0	0	0	0	0	0	NS	0	0	0
	707	MacLeod Creek	NS	NS	NS	NS	NS	NS	NS	NS	0	0	0	0	0	0	NS	0	0	0
	710	Herring Creek	NS	NS	NS	NS	NS	NS	NS	NS	0	0	0	0	0	0	NS	0	0	0
	711	Quadra Creek	NS	NS	NS	NS	NS	NS	NS	NS	0	0	0	0	0	0	NS	0	0	0
	717	Montague Island #1	NS	NS	NS	NS	NS	NS	NS	NS	0	0	0	0	0	0	NS	0	0	0
	718	Montague Island #2	NS	NS	NS	NS	NS	NS	NS	NS	0	0	0	0	0	0	NS	0	0	0
	719	Montague Island #3	NS	NS	NS	NS	NS	NS	NS	NS	0	0	0	0	0	0	NS	0	0	0
	721	Montague Island #4	NS	NS	NS	NS	NS	NS	NS	NS	0	0	0	0	0	0	NS	0	0	0
	722	Montague Island #5	NS	NS	NS	NS	NS	NS	NS	NS	0	0	0	0	0	0	NS	0	0	0
	724	Montague Island #6	NS	NS	NS	NS	NS	NS	NS	NS	0	0	0	0	0	0	NS	0	0	0
	725	Montague Creek	NS	NS	NS	NS	NS	NS	NS	NS	0	0	0	0	0	0	NS	0	0	0
	738	Russell Creek	NS	NS	NS	NS	NS	NS	NS	NS	0	0	0	0	0	0	NS	0	0	0
	739	Swamp Creek	NS	NS	NS	NS	NS	NS	NS	NS	0	0	0	0	0	0	NS	0	0	0
	740	Kelcz Creek	NS	NS	NS	NS	NS	NS	NS	NS	0	0	0	0	0	0	NS	0	0	0
	741	Chalmers River	NS	NS	NS	NS	NS	NS	NS	NS	0	0	0	0	0	0	NS	0	0	0
	227-10 Montague Strait				NS	NS	NS	NS	NS	NS	NS	0	0	0	0	0	0	NS	0	0
	744	Wilby Creek	NS	NS	NS	NS	NS	NS	NS	NS	0	0	0	0	0	0	NS	0	0	0
	745	Wild Creek	NS	NS	NS	NS	NS	NS	NS	NS	0	0	0	0	0	0	NS	0	0	0
	746	Schuman Creek	NS	NS	NS	NS	NS	NS	NS	NS	0	0	0	0	0	0	NS	0	0	0
	747	Cabin Creek	NS	NS	NS	NS	NS	NS	NS	NS	0	0	0	0	0	0	NS	0	0	0
	748	Gilmour Creek	NS	NS	NS	NS	NS	NS	NS	NS	0	0	0	0	0	0	NS	0	0	0
	749	Shad Creek	NS	NS	NS	NS	NS	NS	NS	NS	0	0	0	0	0	0	NS	0	0	0
	752	Stockdale Creek	NS	NS	NS	NS	NS	NS	NS	NS	0	0	0	0	0	0	NS	0	0	0
	753	Stockdale Bay	NS	NS	NS	NS	NS	NS	NS	NS	0	0	0	0	0	0	NS	0	0	0
	754	Dry Creek	NS	NS	NS	NS	NS	NS	NS	NS	0	0	0	0	0	0	NS	0	0	0
	758	Rocky Bay Head	NS	NS	NS	NS	NS	NS	NS	NS	0	0	0	0	0	0	NS	0	0	0
	759	Rocky Creek	NS	NS	NS	NS	NS	NS	NS	NS	0	0	0	0	0	0	NS	0	0	0
	766	Can Creek	NS	NS	NS	NS	NS	NS	NS	NS	0	0	0	0	0	0	NS	0	0	0
	770	Udall Creek	NS	NS	NS	NS	NS	NS	NS	NS	0	0	0	0	0	0	NS	0	0	0
	771	McKernan Creek	NS	NS	NS	NS	NS	NS	NS	NS	0	0	0	0	0	0	NS	0	0	0
	774	Rosavog Creek	NS	NS	NS	NS	NS	NS	NS	NS	0	0	0	0	0	0	NS	0	0	0
	775	Pautze Creek	NS	NS	NS	NS	NS	NS	NS	NS	0	0	0	0	0	0	NS	0	0	0
	788	Green Creek	NS	NS	NS	NS	NS	NS	NS	NS	0	0	0	0	0	0	NS	0	10	10
227-20 Green Island				NS	NS	NS	NS	NS	NS	NS	0	0	0	0	0	0	NS	0	NS	10
Montague District total				NS	NS	NS	NS	NS	NS	NS	0	0	0	0	0	0	0	0	10	20

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Appendix F.5. (Page 6 of 6).

District	Stream Number	Stream Name	Week Ending Date																	Adjusted Total			
			05-Jun	12-Jun	19-Jun	26-Jun	03-Jul	10-Jul	17-Jul	24-Jul	31-Jul	07-Aug	14-Aug	21-Aug	28-Aug	04-Sep	11-Sep	18-Sep	25-Sep				
Southeastern	863	Orea Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0			
	228-10	Orea In/E Hawkins	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0			
	833	Bates Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0			
	834	Hardy Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0			
	835	Scout Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0			
	836	Dani's Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0			
	837	Widgeon Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0			
	839	Goose Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0			
	228-20	Hawkins Culvert	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0			
	844	Makaka Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0			
	847	Hawkins Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0			
	849	Rollins Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0			
	850	Canoe Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0			
	851	Zillisenoff Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0			
	856	W. Lagoon Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0			
	857	E. Lagoon Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0			
	858	N. Lagoon Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	20			
	861	Bernard Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0			
	862	Clamdiggett Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0			
	228-30	N. Hawkins/Canoe Pass	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	20			
228-40	827	Captain Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0			
	828	Cook Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	2,500			
	829	King Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0			
	831	Double Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0			
	Double Bay	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	2,500			
	817	Deer Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	50			
	818	Jania Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0			
	821	Brown Bear Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	1,500			
	228-50	Johnstone Point	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	1,550			
	805	Port Elches - S. Shore	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0			
228-60	806	Dog Salmon Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0			
	807	Beaver Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0			
	810	Garden Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	600			
	811	Elches Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0			
	812	Nuclek Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	2,500			
	815	Constantine Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	12,400			
	Port Elches	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0			
	228-60	Port Elches	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	15,100			
	Southeastern District total			NS	NS	NS	NS	NS	NS	NS	0	2,361	5,950	8,500	2,000	3,000	NS	9,100	NS	1,100	0	0	19,175
	TOTAL OF 9 DISTRICTS			0	0	75	1,210	2,183	9,500	14,289	37,890	40,165	34,333	24,948	3,023	17,548	5,850	1,100	845	345	114,718		

\* NS for No Survey.

\* &lt; for more than one survey in a week.

Appendix F.6. Temporally stratified age and sex composition of the sockeye salmon escapement through the weir on the outlet stream of Coghill Lake, 1993.

		Brood Year and Age Group									Total	
		1990	1989		1988		1987		1986			
		0.2	0.3	1.2	1.3	2.2	1.4	2.3	3.2	3.3		
Stratum dates: 06/10 - 07/09												
Sampling dates: 06/24 - 07/04												
Sample size: 423												
Female	Percent of sample	0.0	0.2	0.2	39.7	0.9	0.9	2.6	0.2	0.2	45.2	
	Number in escapement	0	2	2	379	9	9	25	2	2	431	
Male	Percent of sample	0.0	0.0	1.2	49.6	1.2	1.9	0.9	0.0	0.0	54.8	
	Number in escapement	0	0	11	474	11	18	9	0	0	523	
Total	Percent of sample	0.0	0.2	1.4	89.4	2.1	2.8	3.5	0.2	0.2	100.0	
	Number in escapement	0	2	14	853	20	27	34	2	2	954	
	Standard error	0	2	5	14	7	8	9	2	2		
Stratum dates: 07/10 - 07/20												
Sampling dates: 07/13 - 07/14												
Sample size: 408												
Female	Percent of sample	0.0	0.0	0.5	31.9	0.2	0.7	1.0	0.0	0.0	34.3	
	Number in escapement	0	0	21	1,359	10	31	42	0	0	1,463	
Male	Percent of sample	0.0	0.0	1.2	58.3	0.5	2.9	2.5	0.0	0.2	65.7	
	Number in escapement	0	0	52	2,488	21	125	105	0	10	2,802	
Total	Percent of sample	0.0	0.0	1.7	90.2	0.7	3.7	3.4	0.0	0.2	100.0	
	Number in escapement	0	0	73	3,847	31	157	146	0	10	4,265	
	Standard error	0	0	27	63	18	40	38	0	10		
Stratum dates: 07/21 - 08/01												
Sampling dates: 07/26 - 07/27												
Sample size: 413												
Female	Percent of sample	0.0	0.0	0.5	24.7	0.7	0.2	2.9	0.0	0.2	29.3	
	Number in escapement	0	0	13	664	20	7	78	0	7	787	
Male	Percent of sample	0.2	0.0	0.7	59.8	2.7	1.9	5.1	0.2	0.0	70.7	
	Number in escapement	7	0	20	1,607	72	52	137	7	0	1,900	
Total	Percent of sample	0.2	0.0	1.2	84.5	3.4	2.2	8.0	0.2	0.2	100.0	
	Number in escapement	7	0	33	2,271	91	59	215	7	7	2,687	
	Standard error	7	0	14	48	24	19	36	7	7		
Stratum dates: 08/02 - 08/13												
Sampling dates: 08/02 - 08/06												
Sample size: 417												
Female	Percent of sample	2.2	0.7	16.3	23.5	2.4	0.5	1.7	0.2	0.0	47.5	
	Number in escapement	29	10	216	312	32	6	22	3	0	630	
Male	Percent of sample	1.4	0.5	11.0	34.3	3.4	0.2	1.7	0.0	0.0	52.5	
	Number in escapement	19	6	146	455	45	3	22	0	0	696	
Total	Percent of sample	3.6	1.2	27.3	57.8	5.8	0.7	3.4	0.2	0.0	100.0	
	Number in escapement	48	16	363	766	76	10	45	3	0	1,326	
	Standard error	12	7	29	32	15	5	12	3	0		
<u>Strata Combined:</u> 06/10 - 08/13												
Sampling dates: 06/24 - 08/06												
Sample size: 1,661												
Female	Percent of sample	0.3	0.1	2.7	29.4	0.8	0.6	1.8	0.1	0.1	35.9	
	Number in escapement	29	12	252	2,713	71	53	167	5	9	3,311	
Male	Percent of sample	0.3	0.1	2.5	54.4	1.6	2.2	3.0	0.1	0.1	64.1	
	Number in escapement	26	6	229	5,023	148	199	272	7	10	5,921	
Total	Percent of sample	0.6	0.2	5.2	83.8	2.4	2.7	4.8	0.1	0.2	100.0	
	Number in escapement	54	18	482	7,736	219	252	439	12	19	9,232	
	Standard error	14	7	43	87	34	45	55	8	13		

Appendix F.7. Temporally stratified age and sex composition of the sockeye salmon escapement through the weir at the head of Eshamy Lagoon, 1993.

		Brood Year and Age Group						Total
		1990		1989	1988		1987	
		0.2	1.1	1.2	1.3	2.2	2.3	
Stratum dates: 06/28 – 08/08								
Sampling dates: 07/23 – 07/25								
Sample size: 433								
Female	Percent of sample	0.0	0.0	20.8	18.0	15.9	0.9	55.7
	Number in escapement	0	0	989	857	758	44	2,647
Male	Percent of sample	0.0	0.0	20.8	13.6	9.5	0.5	44.3
	Number in escapement	0	0	989	648	450	22	2,109
Total	Percent of sample	0.0	0.0	41.6	31.6	25.4	1.4	100.0
	Number in escapement	0	0	1,977	1,505	1,208	66	4,756
	Standard error	0	0	113	106	100	27	
Stratum dates: 08/09 – 08/18								
Sampling dates: 08/12 – 08/13								
Sample size: 402								
Female	Percent of sample	0.2	0.0	28.9	6.5	15.9	0.5	52.0
	Number in escapement	49	0	5,728	1,284	3,160	99	10,321
Male	Percent of sample	0.0	0.0	22.1	7.2	18.2	0.5	48.0
	Number in escapement	0	0	4,395	1,432	3,605	99	9,530
Total	Percent of sample	0.2	0.0	51.0	13.7	34.1	1.0	100.0
	Number in escapement	49	0	10,123	2,716	6,765	198	19,851
	Standard error	49	0	496	341	470	98	
Stratum dates: 08/19 – 09/08								
Sampling dates: 08/24 – 08/29								
Sample size: 443								
Female	Percent of sample	0.9	0.0	70.4	1.4	11.1	0.2	84.0
	Number in escapement	165	0	12,879	248	2,023	41	15,355
Male	Percent of sample	0.5	0.5	11.1	0.5	3.6	0.0	16.0
	Number in escapement	83	83	2,023	83	660	0	2,931
Total	Percent of sample	1.4	0.5	81.5	1.8	14.7	0.2	100.0
	Number in escapement	248	83	14,901	330	2,683	41	18,286
	Standard error	101	58	338	116	308	41	
<b>Strata Combined: 06/28 – 09/08</b>								
Sampling dates: 07/23 – 08/29								
Sample size: 1,278								
Female	Percent of sample	0.5	0.0	45.7	5.6	13.9	0.4	66.0
	Number in escapement	214	0	19,595	2,388	5,941	184	28,323
Male	Percent of sample	0.2	0.2	17.3	5.0	11.0	0.3	34.0
	Number in escapement	83	83	7,406	2,163	4,716	121	14,570
Total	Percent of sample	0.7	0.2	63.0	10.6	24.8	0.7	100.0
	Number in escapement	297	83	27,001	4,551	10,656	305	42,893
	Standard error	112	58	610	375	570	110	

**Appendix G**  
**Daily Counts and Age and Sex Data**  
**for Brood Stock Escapements to Prince William Sound Hatcheries**

Appendix G.1. Daily brood stock counts of chinook salmon at Wally Noerenberg Hatchery, 1993.

Date	Male			Female			Cumulative Killed
	Used	Unused	Total Killed	Used	Unused	Total Killed	
07/27	177	72	249	201	123	324	573

Appendix G.2. Daily brood stock counts of sockeye salmon at Main Bay Hatchery, 1993.

Date	Used for Brood Stock			Not Used for Brood Stock <sup>a</sup>			Cumulative Killed
	Male	Female	Total	Male	Female	Total	
08/12	36	54	90	1	5	6	96
08/13	0	0	0	0	0	0	96
08/14	68	87	155	9	13	22	273
08/15	0	0	0	0	0	0	273
08/16	109	142	251	5	27	32	556
08/17	0	0	0	0	0	0	556
08/18	52	78	130	0	7	7	693
08/19	0	0	0	0	0	0	693
08/20	156	223	379	3	18	21	1,093
08/21	57	76	133	1	4	5	1,231
08/22	56	79	135	2	5	7	1,373
08/23	110	156	266	0	8	8	1,647
08/24	104	147	251	0	12	12	1,910
08/25	0	0	0	0	0	0	1,910
08/26	163	234	397	4	17	21	2,328
08/27	0	0	0	0	0	0	2,328
08/28	0	0	0	0	0	0	2,328
08/29	54	79	133	1	5	6	2,467
Totals	965	1,355	2,320	26	121	147	2,467

<sup>a</sup> Includes green females, fish otherwise not suitable for egg–take use, pond mortalities, and excess fish (jacks).

Appendix G.3. Daily brood stock counts of coho salmon at Solomon Gulch and Wally Noerenberg Hatcheries, 1993.

Date	Used for Brood Stock			Not Used for Brood Stock			Cumulative Killed
	Male	Female	Total Killed	Male	Female	Total Killed	
<u>Solomon Gulch Hatchery</u>							
08/20	0	0	0	0	1	1	1
08/21	0	0	0	0	0	0	1
08/22	0	0	0	0	0	0	1
08/23	0	0	0	0	0	0	1
08/24	0	0	0	0	0	0	1
08/25	0	0	0	0	0	0	1
08/26	0	0	0	3	0	3	4
08/27	0	0	0	19	0	19	23
08/28	0	0	0	0	0	0	23
08/29	0	0	0	0	0	0	23
08/30	0	0	0	21	0	21	44
08/31	0	0	0	2	0	2	46
09/01	0	0	0	2	1	3	49
09/02	0	0	0	0	0	0	49
09/03	0	0	0	19	1	20	69
09/04	0	0	0	0	0	0	69
09/05	0	0	0	2	3	5	74
09/06	0	0	0	0	1	1	75
09/07	0	0	0	1	3	4	79
09/08	0	0	0	3	2	5	84
09/09	0	0	0	6	2	8	92
09/10	0	0	0	1	0	1	93
09/11	0	0	0	1	1	2	95
09/12	0	0	0	6	3	9	104
09/13	0	0	0	4	0	4	108
09/14	0	0	0	19	9	28	136
09/15	0	0	0	0	0	0	136
09/16	0	0	0	11	1	12	148
09/17	0	0	0	2	3	5	153
09/18	0	0	0	2	4	6	159
09/19	0	0	0	5	13	18	177
09/20	0	0	0	15	6	21	198
09/21	0	0	0	14	9	23	221
09/22	0	0	0	7	13	20	241
09/23	0	0	0	9	20	29	270
09/24	0	0	0	9	10	19	289
09/25	0	0	0	2	5	7	296
09/26	0	0	0	2	10	12	308
09/27	0	0	0	16	42	58	366
09/28	0	0	0	4	15	19	385
09/29	0	0	0	16	21	37	422
09/30	0	0	0	4	10	14	436

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Date	Used for Brood Stock			Not Used for Brood Stock			Cumulative Killed
	Male	Female	Total Killed	Male	Female	Total Killed	
10/01	0	0	0	3	6	9	445
10/02	0	0	0	12	18	30	475
10/03	0	0	0	0	0	0	475
10/04	0	0	0	0	0	0	475
10/05	0	0	0	0	0	0	475
10/06	0	0	0	0	0	0	475
10/07	29	89	118	16	57	73	666
10/08	0	0	0	4	4	8	674
10/09	0	0	0	0	0	0	674
10/10	0	0	0	1	1	2	676
10/11	0	0	0	2	1	3	679
10/12	0	0	0	2	5	7	686
10/13	0	0	0	0	0	0	686
10/14	0	0	0	2	9	11	697
10/15	0	0	0	1	3	4	701
10/16	0	0	0	4	3	7	708
10/17	0	0	0	2	10	12	720
10/18	0	0	0	9	18	27	747
10/19	46	139	185	25	61	86	1,018
10/20	0	0	0	2	6	8	1,026
10/21	0	0	0	1	3	4	1,030
10/22	0	0	0	3	4	7	1,037
10/23	0	0	0	1	1	2	1,039
10/24	0	0	0	4	0	4	1,043
10/25	45	138	183	7	23	30	1,256
10/26	0	0	0	0	0	0	1,256
10/27	0	0	0	0	0	0	1,256
10/28	0	0	0	0	0	0	1,256
10/29	27	82	109	15	27	42	1,407
10/30	0	0	0	0	0	0	1,407
10/31	0	0	0	0	0	0	1,407
11/01	0	0	0	0	0	0	1,407
11/02	23	69	92	91	99	190	1,689
Totals	170	517	687	434	568	1,002	1,689

Date	Used for Brood Stock			Not Used for Brood Stock			Cumulative Killed
	Male	Female	Total Killed	Male	Female	Total Killed	
<b>Wally Noerenberg Hatchery</b>							
10/26	241	216	457	112	84	196	653
10/27	358	467	825	187	79	266	1,744
Totals	599	683	1,282	299	163	462	1,744



Appendix G.4. Daily brood stock counts of pink salmon at Solomon Gulch, Cannery Creek, Wally Noerenberg, and Armmmin F. Koernig Hatcheries, 1993.

Date	Used for Brood Stock			Not Used for Brood Stock			Cumulative Killed
	Male	Female	Total Killed	Male	Female	Total Killed	
<b><u>Solomon Gulch Hatchery</u></b>							
07/23	1,476	4,429	5,905	5,527	194	5,721	11,626
07/24	2,499	7,497	9,996	8,743	445	9,188	30,810
07/25	0	0	0	131	104	235	31,045
07/26	2,610	7,830	10,440	8,930	334	9,264	50,749
07/27	2,504	7,511	10,015	8,884	360	9,244	70,008
07/28	1,851	5,554	7,405	5,927	325	6,252	83,665
07/29	1,718	5,153	6,871	5,589	258	5,847	96,383
07/30	2,241	6,722	8,963	6,378	367	6,745	112,091
07/31	1,012	3,036	4,048	1,835	219	2,054	118,193
08/01	0	0	0	173	190	363	118,556
08/02	2,452	7,355	9,807	4,781	498	5,279	133,642
08/03	2,756	8,269	11,025	5,886	477	6,363	151,030
08/04	2,494	7,483	9,977	7,057	666	7,723	168,730
08/05	2,468	10,723	13,191	5,076	684	5,760	187,681
08/06	2,188	6,563	8,751	4,196	421	4,617	201,049
08/07	0	0	0	594	622	1,216	202,265
08/08	0	0	0	296	319	615	202,880
08/09	3,849	11,546	15,395	4,573	850	5,423	223,698
08/10	2,959	8,876	11,835	6,914	735	7,649	243,182
08/11	3,196	9,587	12,783	5,850	629	6,479	262,444
08/12	3,005	9,014	12,019	4,471	926	5,397	279,860
08/13	3,018	9,055	12,073	5,860	729	6,589	298,522
08/14	0	0	0	499	825	1,324	299,846
08/15	0	0	0	192	234	426	300,272
08/16	2,758	8,274	11,032	8,093	491	8,584	319,888
08/17	1,150	3,449	4,599	3,785	355	4,140	328,627
08/18	336	1,008	1,344	1,890	438	2,328	332,299
08/19	0	0	0	274	359	633	332,932
08/20	1,217	3,652	4,869	1,941	74	2,015	339,816
08/21	0	0	0	62	119	181	339,997
08/22	0	0	0	1	4	5	340,002
08/23	0	0	0	6,140	5,758	11,898	351,900
08/24	0	0	0	1,679	1,912	3,591	355,491
08/25	0	0	0	32	39	71	355,562
08/26	0	0	0	1,439	1,036	2,475	358,037
08/27	0	0	0	651	559	1,210	359,247
08/28	0	0	0	214	153	367	359,614
08/29	0	0	0	137	123	260	359,874
08/30	0	0	0	434	323	757	360,631
08/31	0	0	0	92	88	180	360,811
09/01	0	0	0	83	84	167	360,978
09/02	0	0	0	48	32	80	361,058
09/03	0	0	0	439	293	732	361,790
Totals	49,757	152,586	202,343	135,796	23,651	159,447	361,790

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Date	Used for Brood Stock			Not Used for Brood Stock			Cumulative Killed
	Male	Female	Total Killed	Male	Female	Total Killed	
<b><u>Cannery Creek Hatchery</u></b>							
08/24	631	1,232	1,863	3,888	152	4,040	5,903
08/25	697	1,300	1,997	4,615	235	4,850	12,750
08/26	907	1,721	2,628	7,065	323	7,388	22,766
08/27	726	1,342	2,068	3,284	275	3,559	28,393
08/28	930	1,695	2,625	5,492	254	5,746	36,764
08/29	706	1,297	2,003	3,482	327	3,809	42,576
08/30	929	1,716	2,645	6,689	403	7,092	52,313
08/31	1,160	2,081	3,241	5,476	695	6,171	61,725
09/01	1,102	2,107	3,209	6,463	583	7,046	71,980
09/02	1,331	2,488	3,819	6,499	618	7,117	82,916
09/03	2,234	4,202	6,436	4,319	628	4,947	94,299
09/04	2,101	4,329	6,430	2,280	554	2,834	103,563
09/05	2,085	4,202	6,287	5,573	928	6,501	116,351
09/06	1,589	3,254	4,843	8,021	778	8,799	129,993
09/07	1,744	3,460	5,204	10,195	3,258	13,453	148,650
09/08	2,718	5,512	8,230	3,315	1,637	4,952	161,832
09/09	2,732	5,258	7,990	2,997	1,778	4,775	174,597
09/10	3,185	6,242	9,427	3,300	1,796	5,096	189,120
09/11	3,646	7,156	10,802	3,059	2,359	5,418	205,340
09/12	2,071	4,153	6,224	6,205	4,230	10,435	221,999
09/13	2,335	4,524	6,859	7,180	5,642	12,822	241,680
09/14	1,461	2,847	4,308	4,788	4,030	8,818	254,806
09/15	459	851	1,310	4,989	3,775	8,764	264,880
Totals	37,479	72,969	110,448	119,174	35,258	154,432	264,880

Date	Used for Brood Stock			Not Used for Brood Stock			Cumulative Killed
	Male	Female	Total Killed	Male	Female	Total Killed	
<b>Wally Noerenberg Hatchery</b>							
08/23	906	1,735	2,641	7,996	286	8,282	10,923
08/24	1,265	2,334	3,599	6,003	421	6,424	20,946
08/25	1,247	2,369	3,616	5,046	440	5,486	30,048
08/26	1,141	2,075	3,216	4,678	400	5,078	38,342
08/27	1,459	2,510	3,969	5,757	490	6,247	48,558
08/28	1,955	3,683	5,638	6,820	657	7,477	61,673
08/29	2,050	3,705	5,755	4,732	693	5,425	72,853
08/30	2,166	3,924	6,090	4,788	658	5,446	84,389
08/31	2,681	5,004	7,685	5,399	829	6,228	98,302
09/01	2,218	4,067	6,285	5,798	782	6,580	111,167
09/02	4,092	7,960	12,052	7,802	1,103	8,905	132,124
09/03	2,954	5,311	8,265	4,410	722	5,132	145,521
09/04	4,725	8,506	13,231	5,743	1,014	6,757	165,509
09/05	3,903	6,963	10,866	5,009	1,050	6,059	182,434
09/06	5,884	10,446	16,330	5,834	1,412	7,246	206,010
09/07	4,305	8,315	12,620	6,714	1,069	7,783	226,413
09/08	4,948	9,240	14,188	4,443	1,505	5,948	246,549
09/09	4,044	7,250	11,294	1,842	1,043	2,885	260,728
09/10	4,253	7,890	12,143	2,802	1,303	4,105	276,976
09/11	3,287	6,150	9,437	2,659	1,655	4,314	290,727
09/12	3,303	6,107	9,410	3,131	1,599	4,730	304,867
09/13	3,369	5,997	9,366	4,070	1,898	5,968	320,201
09/14	1,726	3,264	4,990	3,140	1,063	4,203	329,394
09/15	1,527	2,974	4,501	1,003	693	1,696	335,591
09/16	520	995	1,515	241	211	452	337,558
Totals	69,928	128,774	198,702	115,860	22,996	138,856	337,558

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Date	Used for Brood Stock			Not Used for Brood Stock			Cumulative Killed
	Male	Female	Total Killed	Male	Female	Total Killed	
<b><u>Armin F. Koernig Hatchery</u></b>							
08/21	294	386	680	0	71	71	751
08/22	647	1,002	1,649	20	189	209	2,609
08/23	1,204	1,469	2,673	23	116	139	5,421
08/24	1,068	1,547	2,615	2,686	112	2,798	10,834
08/25	1,488	2,181	3,669	3,538	209	3,747	18,250
08/26	1,265	1,870	3,135	5,383	291	5,674	27,059
08/27	1,372	2,013	3,385	2,577	366	2,943	33,387
08/28	1,540	2,244	3,784	7,537	373	7,910	45,081
08/29	1,948	2,869	4,817	5,386	433	5,819	55,717
08/30	2,250	3,323	5,573	5,988	521	6,509	67,799
08/31	2,060	3,076	5,136	4,206	419	4,625	77,560
09/01	2,716	3,850	6,566	122	579	701	84,827
09/02	1,915	2,748	4,663	68	370	438	89,928
09/03	3,521	4,856	8,377	120	674	794	99,099
09/04	5,236	7,016	12,252	53	778	831	112,182
09/05	4,948	7,528	12,476	79	1,001	1,080	125,738
09/06	3,830	6,158	9,988	58	889	947	136,673
09/07	1,261	1,977	3,238	61	452	513	140,424
09/08	3,984	6,628	10,612	172	997	1,169	152,205
09/09	3,679	6,030	9,709	1,900	784	2,684	164,598
09/10	2,856	4,568	7,424	2,514	617	3,131	175,153
09/11	3637	6,130	9,767	2321	884	3,205	188,125
09/12	1938	3,091	5,029	6,884	796	7,680	200,834
09/13	1986	3,352	5,338	3540	1,045	4,585	210,757
Totals	56,643	85,912	142,555	55,236	12,966	68,202	210,757

Appendix G.5. Daily brood stock counts of chum salmon at Solomon Gulch and Wally Noerenberg Hatcheries, 1993.

Date	Used for Brood Stock			Not Used for Brood Stock			Cumulative Killed
	Male	Female	Total Killed	Male	Female	Total Killed	
<b>Solomon Gulch Hatchery</b>							
07/31	72	216	288	80	35	115	403
08/01	0	0	0	0	1	1	404
08/02	0	0	0	3	1	4	408
08/03	0	0	0	0	1	1	409
08/04	0	0	0	3	6	9	418
08/05	0	0	0	1	8	9	427
08/06	0	0	0	3	1	4	431
08/07	91	274	365	186	21	207	1,003
08/08	0	0	0	5	6	11	1,014
08/09	0	0	0	3	7	10	1,024
08/10	0	0	0	0	4	4	1,028
08/11	0	0	0	8	9	17	1,045
08/12	0	0	0	0	1	1	1,046
08/13	0	0	0	158	8	166	1,212
08/14	232	696	928	464	87	551	2,691
08/15	0	0	0	7	5	12	2,703
08/16	0	0	0	3	3	6	2,709
08/17	0	0	0	3	1	4	2,713
08/18	76	228	304	65	32	97	3,114
08/19	0	0	0	1	8	9	3,123
08/20	0	0	0	131	0	131	3,254
08/21	0	0	0	0	0	0	3,254
08/22	0	0	0	4	11	15	3,269
08/23	110	330	440	606	5	611	4,320
08/24	85	254	339	334	91	425	5,084
08/25	0	0	0	1	5	6	5,090
08/26	128	383	511	612	31	643	6,244
08/27	53	159	212	357	6	363	6,819
08/28	0	0	0	36	25	61	6,880
08/29	0	0	0	35	24	59	6,939
08/30	133	399	532	585	46	631	8,102
08/31	0	0	0	43	40	83	8,185
09/01	0	0	0	12	8	20	8,205
09/02	0	0	0	23	14	37	8,242
09/03	38	114	152	253	17	270	8,664
09/04	0	0	0	11	10	21	8,685
09/05	0	0	0	36	58	94	8,779
09/06	0	0	0	25	15	40	8,819
09/07	0	0	0	20	18	38	8,857
09/08	0	0	0	21	13	34	8,891
09/09	0	0	0	7	10	17	8,908
09/10	8	24	32	47	0	47	8,987
09/11	0	0	0	0	0	0	8,987
09/12	0	0	0	14	6	20	9,007
09/13	2	6	8	14	0	14	9,029
09/14	0	0	0	0	4	4	9,033
Totals	1,028	3,083	4,111	4,220	702	4,922	9,033

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Appendix G.5. (Page 2 of 2).

Date	Used for Brood Stock			Not Used for Brood Stock			Cumulative Killed
	Male	Female	Total Killed	Male	Female	Total Killed	
Wally Noerenberg Hatchery							
07/01	814	1,314	2,128	792	150	942	3,070
07/02	1,597	2,943	4,540	1,249	286	1,535	9,145
07/03	1,564	2,888	4,452	674	241	915	14,512
07/04	1,491	2,644	4,135	600	279	879	19,526
07/05	926	1,617	2,543	539	184	723	22,792
07/06	565	879	1,444	535	201	736	24,972
07/07	1,253	2,019	3,272	630	361	991	29,235
07/08	1,627	2,742	4,369	578	314	892	34,496
07/09	1,111	1,847	2,958	620	269	889	38,343
07/10	1,727	2,863	4,590	712	358	1,070	44,003
07/11	2,024	3,415	5,439	640	358	998	50,440
07/12	541	917	1,458	404	129	533	52,431
07/13	1,826	2,937	4,763	565	396	961	58,155
07/14	1,682	2,803	4,485	573	351	924	63,564
07/15	835	1,387	2,222	213	260	473	66,259
07/16	1,123	1,927	3,050	113	163	276	69,585
07/17	2,167	3,706	5,873	311	384	695	76,153
07/18	1,679	2,822	4,501	369	293	662	81,316
07/19	1,383	2,331	3,714	264	212	476	85,506
07/20	2,051	3,913	5,964	205	421	626	92,096
07/21	1,878	3,995	5,873	271	553	824	98,793
07/22	1,097	2,892	3,989	217	351	568	103,350
Totals	30,961	54,801	85,762	11,074	6,514	17,588	103,350

Appendix G.6. Estimated age and sex composition of chinook salmon in the Wally Noerenberg Hatchery brood stock, 1993.

		Brood Year and Age Group			Total
		1990	1989	1988	
		1.1	1.2	1.3	
Sampling date: 07/27					
Female	Sample size	1	0	66	67
	Percent of sample	0.8	0.0	55.5	56.3
Male	Sample size	0	3	49	52
	Percent of sample	0.0	2.5	41.2	43.7
Total	Sample size	1	3	115	119
	Percent of sample	0.8	2.5	96.6	100.0
	Standard error	0.8	1.4	1.7	

Appendix G.7. Temporally stratified age and sex composition of sockeye salmon in the Main Bay Hatchery brood stock (Coghill Lake stock), 1993.

		Brood Year and Age Group		Total
		1989	1988	
		1.2	1.3	
Sampling dates:	08/15 - 08/16			
Female	Sample size	50	49	99
	Percent of sample	31.1	30.4	61.5
Male	Sample size	44	18	62
	Percent of sample	27.3	11.2	38.5
Total	Sample size	94	67	161
	Percent of sample	58.4	41.6	100.0
	Standard error	3.9	3.9	
Sampling dates:	08/18 - 08/22			
Female	Sample size	92	34	126
	Percent of sample	42.8	15.8	58.6
Male	Sample size	63	26	89
	Percent of sample	29.3	12.1	41.4
Total	Sample size	155	60	215
	Percent of sample	72.1	27.9	100.0
	Standard error	3.1	3.1	
Sampling dates:	08/23 - 08/29			
Female	Sample size	77	36	113
	Percent of sample	38.5	18.0	56.5
Male	Sample size	65	22	87
	Percent of sample	32.5	11.0	43.5
Total	Sample size	142	58	200
	Percent of sample	71.0	29.0	100.0
	Standard error	3.2	3.2	
<b>Combined Samples:</b>	08/15 - 08/29			
Female	Sample size	219	119	338
	Percent of sample	38.0	20.7	58.7
Male	Sample size	172	66	238
	Percent of sample	29.9	11.5	41.3
Total	Sample size	391	185	576
	Percent of sample	67.9	32.1	100.0
	Standard error	1.9	1.9	

Appendix G.8. Temporally stratified age and sex composition of chum salmon in the Solomon Gulch Hatchery brood stock, 1993.

		Brood Year and Age Group			Total
		1989 0.3	1988 0.4	1987 0.5	
Sampling dates: 08/14 - 08/14					
Female	Sample size	0	94	1	95
	Percent of sample	0.0	73.4	0.8	74.2
Male	Sample size	0	33	0	33
	Percent of sample	0.0	25.8	0.0	25.8
Total	Sample size	0	127	1	128
	Percent of sample	0.0	99.2	0.8	100.0
	Standard error	0.0	0.8	0.8	
Sampling dates: 08/23 - 08/23					
Female	Sample size	2	103	0	105
	Percent of sample	1.4	74.6	0.0	76.1
Male	Sample size	0	33	0	33
	Percent of sample	0.0	23.9	0.0	23.9
Total	Sample size	2	136	0	138
	Percent of sample	1.4	98.6	0.0	100.0
	Standard error	1.0	1.0	0.0	
<b>Combined Samples:</b> 08/14 - 08/23					
Female	Sample size	2	197	1	200
	Percent of sample	0.8	74.1	0.4	75.2
Male	Sample size	0	66	0	66
	Percent of sample	0.0	24.8	0.0	24.8
Total	Sample size	2	263	1	266
	Percent of sample	0.8	98.9	0.4	100.0
	Standard error	0.5	0.6	0.4	



Appendix G.9. Temporally stratified age and sex composition of chum salmon in the Wally Noerenberg Hatchery brood stock, 1993.

		Brood Year and Age Group			Total
		1989 0.3	1988 0.4	1987 0.5	
Sampling dates:	07/05 - 07/05				
Female	Sample size	8	96	1	105
	Percent of sample	4.1	49.0	0.5	53.6
Male	Sample size	8	82	1	91
	Percent of sample	4.1	41.8	0.5	46.4
Total	Sample size	16	178	2	196
	Percent of sample	8.2	90.8	1.0	100.0
	Standard error	2.0	2.1	0.7	
Sampling dates:	07/12 - 07/12				
Female	Sample size	33	113	0	146
	Percent of sample	15.6	53.6	0.0	69.2
Male	Sample size	18	47	0	65
	Percent of sample	8.5	22.3	0.0	30.8
Total	Sample size	51	160	0	211
	Percent of sample	24.2	75.8	0.0	100.0
	Standard error	3.0	3.0	0.0	
<b>Combined Samples:</b> 07/05 - 07/12					
Female	Sample size	41	209	1	251
	Percent of sample	10.1	51.4	0.2	61.7
Male	Sample size	26	129	1	156
	Percent of sample	6.4	31.7	0.2	38.3
Total	Sample size	67	338	2	407
	Percent of sample	16.5	83.0	0.5	100.0
	Standard error	1.8	1.9	0.3	

Appendix G.10. Temporally stratified age and sex composition of sockeye salmon in the Main Bay Hatchery cost recovery harvest, 1993.

		Brood Year and Age Group								Total
		1990		1989	1988		1987			
		0.2	1.1	1.2	1.3	2.2	1.4	2.3		
Stratum dates:	06/24 - 07/04									
Sampling dates:	06/28 - 06/28									
Sample size:	221									
Female	Percent of sample	0.0	0.9	16.3	43.4	0.0	0.5	1.4	62.4	
	Number in catch	0	49	891	2,375	0	25	74	3,414	
Male	Percent of sample	0.0	1.4	15.8	19.5	0.5	0.0	0.5	37.6	
	Number in catch	0	74	866	1,064	25	0	25	2,053	
Total	Percent of sample	0.0	2.3	32.1	62.9	0.5	0.5	1.8	100.0	
	Number in catch	0	124	1,756	3,439	25	25	99	5,467	
	Standard error	0	55	172	178	25	25	49		
Stratum dates:	07/05 - 07/08									
Sampling dates:	07/05 - 07/05									
Sample size:	390									
Female	Percent of sample	0.0	0.3	36.4	22.3	0.5	0.0	0.3	59.7	
	Number in catch	0	26	3,626	2,222	51	0	26	5,950	
Male	Percent of sample	0.0	4.4	22.3	12.6	0.5	0.0	0.5	40.3	
	Number in catch	0	434	2,222	1,251	51	0	51	4,010	
Total	Percent of sample	0.0	4.6	58.7	34.9	1.0	0.0	0.8	100.0	
	Number in catch	0	460	5,848	3,473	102	0	77	9,960	
	Standard error	0	106	249	241	51	0	44		
Stratum dates:	07/09 - 07/14									
Sampling dates:	07/11 - 07/11									
Sample size:	340									
Female	Percent of sample	0.0	0.6	53.8	13.2	0.3	0.0	0.0	67.9	
	Number in catch	0	63	5,752	1,414	31	0	0	7,261	
Male	Percent of sample	0.0	5.0	18.2	8.8	0.0	0.0	0.0	32.1	
	Number in catch	0	534	1,949	943	0	0	0	3,426	
Total	Percent of sample	0.0	5.6	72.1	22.1	0.3	0.0	0.0	100.0	
	Number in catch	0	597	7,701	2,357	31	0	0	10,687	
	Standard error	0	133	260	241	31	0	0		
Stratum dates:	07/15 - 07/28									
Sampling dates:	07/19 - 07/19									
Sample size:	160									
Female	Percent of sample	0.6	0.0	45.6	14.4	0.6	0.0	0.0	61.3	
	Number in catch	226	0	16,514	5,203	226	0	0	22,169	
Male	Percent of sample	1.3	2.5	24.4	10.6	0.0	0.0	0.0	38.8	
	Number in catch	452	905	8,823	3,846	0	0	0	14,026	
Total	Percent of sample	1.9	2.5	70.0	25.0	0.6	0.0	0.0	100.0	
	Number in catch	679	905	25,337	9,049	226	0	0	36,195	
	Standard error	389	448	1,315	1,243	226	0	0		

		Brood Year and Age Group								Total
		1990		1989	1988		1987			
		0.2	1.1	1.2	1.3	2.2	1.4	2.3		
Stratum dates:	07/29 - 09/02									
Sampling dates:	08/08 - 08/09									
Sample size:	316									
Female	Percent of sample	0.0	1.3	54.1	3.8	0.9	0.0	0.0		60.1
	Number in catch	0	603	25,765	1,808	452	0	0		28,627
Male	Percent of sample	0.0	5.7	28.5	5.4	0.3	0.0	0.0		39.9
	Number in catch	0	2,712	13,560	2,561	151	0	0		18,985
Total	Percent of sample	0.0	7.0	82.6	9.2	1.3	0.0	0.0		100.0
	Number in catch	0	3,315	39,325	4,369	603	0	0		47,612
	Standard error	0	683	1,017	774	300	0	0		
Strata Combined:	06/24 - 09/02									
Sampling dates:	06/28 - 08/09									
Sample size:	1,427									
Female	Percent of sample	0.2	0.7	47.8	11.8	0.7	0.0	0.1		61.3
	Number in catch	226	741	52,548	13,022	761	25	100		67,422
Male	Percent of sample	0.4	4.2	24.9	8.8	0.2	0.0	0.1		38.7
	Number in catch	452	4,660	27,419	9,665	226	0	76		42,499
Total	Percent of sample	0.6	4.9	72.7	20.6	0.9	0.0	0.2		100.0
	Number in catch	679	5,400	79,967	22,687	987	25	176		109,921
	Standard error	389	836	1,710	1,514	381	25	66		

Appendix G.11. Temporally stratified age and sex composition of chum salmon in the Wally Noerenberg Hatchery cost recovery harvest, 1993.

		Brood Year and Age Group				Total
		1990	1989	1988	1987	
		0.2	0.3	0.4	0.5	
Stratum dates:	05/29 - 06/19					
Sampling dates:	06/04 - 06/11					
Sample size:	398					
Female	Percent of sample	0.0	0.8	20.1	0.0	20.9
	Number in catch	0	486	12,951	0	13,436
Male	Percent of sample	0.0	1.0	39.9	1.0	42.0
	Number in catch	0	648	25,740	648	27,035
Total	Percent of sample	0.0	3.0	96.0	1.0	100.0
	Number in catch	0	1,943	61,840	648	64,430
	Standard error	0	553	635	323	
Stratum dates:	06/20 - 06/28					
Sampling dates:	06/24 - 06/27					
Sample size:	589					
Female	Percent of sample	0.0	12.4	41.1	0.3	53.8
	Number in catch	0	11,583	38,397	317	50,297
Male	Percent of sample	0.0	19.5	26.7	0.0	46.2
	Number in catch	0	18,247	24,910	0	43,157
Total	Percent of sample	0.0	31.9	67.7	0.3	100.0
	Number in catch	0	29,829	63,308	317	93,454
	Standard error	0	1,797	1,802	224	
Stratum dates:	06/29 - 07/05					
Sampling dates:	07/01 - 07/04					
Sample size:	468					
Female	Percent of sample	0.0	30.1	38.0	0.2	68.4
	Number in catch	0	24,550	30,992	174	55,716
Male	Percent of sample	0.0	22.0	9.6	0.0	31.6
	Number in catch	0	17,933	7,835	0	25,768
Total	Percent of sample	0.0	52.1	47.6	0.2	100.0
	Number in catch	0	42,483	38,827	174	81,484
	Standard error	0	1,884	1,883	174	
Stratum dates:	07/06 - 07/12					
Sampling dates:	07/08 - 07/11					
Sample size:	694					
Female	Percent of sample	0.0	39.6	18.3	0.0	57.9
	Number in catch	0	28,902	13,347	0	42,249
Male	Percent of sample	0.0	11.1	3.6	0.1	14.8
	Number in catch	0	8,092	2,627	105	10,825
Total	Percent of sample	0.0	71.3	28.5	0.1	100.0
	Number in catch	0	52,023	20,809	105	72,937
	Standard error	0	1,253	1,251	105	

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		Brood Year and Age Group				Total
		1990	1989	1988	1987	
		0.2	0.3	0.4	0.5	
Stratum dates:	07/13 - 07/19					
Sampling dates:	07/15 - 07/17					
Sample size:	693					
Female	Percent of sample	0.0	62.0	18.2	0.0	80.2
	Number in catch	0	24,795	7,266	0	32,061
Male	Percent of sample	0.0	16.5	3.3	0.0	19.8
	Number in catch	0	6,574	1,326	0	7,900
Total	Percent of sample	0.0	78.5	21.5	0.0	100.0
	Number in catch	0	31,369	8,592	0	39,961
	Standard error	0	624	624	0	
Stratum dates:	07/20 - 08/09					
Sampling dates:	07/22 - 07/30					
Sample size:	447					
Female	Percent of sample	0.2	68.5	10.1	0.2	79.0
	Number in catch	249	76,209	11,207	249	87,914
Male	Percent of sample	0.0	16.8	4.3	0.0	21.0
	Number in catch	0	18,679	4,732	0	23,411
Total	Percent of sample	0.2	85.2	14.3	0.2	100.0
	Number in catch	249	94,888	15,939	249	111,325
	Standard error	249	1,870	1,846	249	
<b>Strata Combined:</b>	05/29 - 08/09					
Sampling dates:	06/04 - 07/30					
Sample size:	3,289					
Female	Percent of sample	0.1	35.9	24.6	0.2	60.8
	Number in catch	249	166,524	114,160	740	281,673
Male	Percent of sample	0.0	15.1	14.5	0.2	29.8
	Number in catch	0	70,172	67,171	753	138,096
Total	Percent of sample	0.1	54.5	45.2	0.3	100.0
	Number in catch	249	252,534	209,314	1,493	463,591
	Standard error	249	3,541	3,544	508	

**Appendix H**  
**Mean Length by Sex and Age of Salmon in the Commercial Common Property Catches and Escapements**  
**of the Copper/Bering Rivers and Prince William Sound**

Appendix H.1. Mean length by sex and age of chinook salmon from the commercial common property drift gillnet catches in the Copper River District, 1993.

		Brood Year and Age Group							
		1990	1989	1988		1987		1986	
		0.2	1.2	1.3	2.2	1.4	2.3	1.5	2.4
Sample date: 05/18									
Females	Mean Length (mm)		657	787		866	672	947	843
	Std. Error		4.9	4.7		9.7	0.0	30.5	0.0
	Sample Size		4	78		23	1	2	1
Males	Mean Length (mm)		606	812	590	927		910	927
	Std. Error		18.4	13.5	0.0	17.8		0.0	0.0
	Sample Size		3	24	1	19		1	1
Sample date: 05/24									
Females	Mean Length (mm)	611	672	801		878	802	874	895
	Std. Error	0.0	0.0	5.8		8.2	22.3	33.0	11.5
	Sample Size	1	1	67		15	10	2	3
Males	Mean Length (mm)		621	793		902	777		
	Std. Error		18.5	8.7		15.2	0.0		
	Sample Size		4	36		13	1		
Sample date: 05/27									
Females	Mean Length (mm)		601	804		898	813		874
	Std. Error		0.0	5.5		11.3	6.5		0.0
	Sample Size		1	45		18	2		1
Males	Mean Length (mm)	548	631	811		935	793	1001	
	Std. Error	0.0	18.5	7.1		10.5	68.5	0.0	
	Sample Size	1	11	67		21	2	1	
Sample date: 06/05									
Females	Mean Length (mm)		643	819	599	893		909	
	Std. Error		24.7	5.5	0.0	15.2		0.0	
	Sample Size		4	78	1	20		1	
Males	Mean Length (mm)	505	610	821		946	815	876	
	Std. Error	0.0	15.1	9.1		33.6	26.0	0.0	
	Sample Size	1	15	51		8	2	1	

Appendix H.2. Mean length by sex and age of sockeye salmon from the commercial common property drift gillnet catches in the Copper River District, 1993.

		Brood Year and Age Group								
		1990	1989		1988			1987		1986
		0.2	0.3	1.2	0.4	1.3	2.2	1.4	2.3	2.4
Sample date: 05/15										
Females	Mean Length (mm)		537	511		521		512	511	521
	Std. Error		4.3	0.0		3.1		0.0	5.5	0.0
	Sample Size		15	1		69		1	24	1
Males	Mean Length (mm)		555	483		554			544	
	Std. Error		6.3	0.0		4.0			6.0	
	Sample Size		17	1		45			13	
Sample date: 05/24										
Females	Mean Length (mm)		522	463		529	499	507	522	
	Std. Error		4.5	6.9		4.7	0.0	0.0	6.1	
	Sample Size		8	3		32	1	1	14	
Males	Mean Length (mm)		544	470		536		617	534	491
	Std. Error		4.8	16.9		4.1		0.0	11.5	0.0
	Sample Size		27	3		84		1	13	1
Sample date: 06/01										
Females	Mean Length (mm)		546	503		541			515	
	Std. Error		7.0	4.6		3.5			4.4	
	Sample Size		8	8		66			11	
Males	Mean Length (mm)	573	550	497		564	488		528	
	Std. Error	0.0	13.3	10.3		3.8	1.0		19.4	
	Sample Size	1	6	10		63	2		6	
Sample date: 06/08										
Females	Mean Length (mm)		529	499	534	544	494		545	
	Std. Error		3.2	2.9	0.0	3.3	7.0		9.3	
	Sample Size		12	28	1	65	2		7	
Males	Mean Length (mm)	428	551	520		568			554	
	Std. Error	0.0	8.7	4.9		3.5			7.6	
	Sample Size	1	7	8		47			4	

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		Brood Year and Age Group								
		1990	1989		1988			1987		1986
		0.2	0.3	1.2	0.4	1.3	2.2	1.4	2.3	2.4
Sample date: 06/16										
Females	Mean Length (mm)		536	511		545	541		514	
	Std. Error		5.1	4.2		2.6	0.0		8.7	
	Sample Size		11	10		78	1		3	
Males	Mean Length (mm)		554	473		562			553	
	Std. Error		10.4	8.6		3.4			0.0	
	Sample Size		8	16		66			1	
Sample date: 06/26										
Females	Mean Length (mm)		554	499		549		542	537	
	Std. Error		8.5	7.1		2.6		0.0	0.0	
	Sample Size		8	9		72		1	1	
Males	Mean Length (mm)		549	490		564		564	503	
	Std. Error		23.1	9.2		3.1		31.5	10.0	
	Sample Size		3	19		74		2	2	
Sample date: 07/06										
Females	Mean Length (mm)		554	504		556	527	567	555	
	Std. Error		4.5	7.0		2.6	0.0	0.0	4.3	
	Sample Size		5	15		59	1	1	4	
Males	Mean Length (mm)		553	499		564		583		
	Std. Error		12.8	7.7		2.9		5.0		
	Sample Size		4	32		55		2		
Sample date: 07/17										
Females	Mean Length (mm)		547	506	521	549	535	585	572	
	Std. Error		6.9	6.1	0.0	2.3	0.0	0.0	12.2	
	Sample Size		9	10	1	76	1	1	4	
Males	Mean Length (mm)		560	518		563	533	582	558	
	Std. Error		9.4	5.4		4.2	4.0	0.0	6.0	
	Sample Size		6	26		50	2	1	3	
Sample date: 07/27										
Females	Mean Length (mm)		553	502		556	447	565	540	
	Std. Error		7.1	5.3		2.4	0.0	0.0	8.0	
	Sample Size		10	11		61	1	1	2	
Males	Mean Length (mm)		553	517		568	527		615	
	Std. Error		4.9	9.9		3.3	13.5		15.5	
	Sample Size		5	14		73	2		2	



Appendix H.3. Mean length by sex and age of coho salmon from the commercial common property drift gillnet catches in the Copper River District, 1993.

		Brood Year and Age Group				
		1990		1989	1988	
		1.1	2.0	2.1	2.2	3.1
Sample date: 08/20						
Females	Mean Length (mm)	587		598		
	Std. Error	9.0		9.9		
	Sample Size	10		25		
Males	Mean Length (mm)	575		597		
	Std. Error	6.5		6.5		
	Sample Size	54		82		
Sample date: 09/04						
Females	Mean Length (mm)	600		617		629
	Std. Error	5.7		3.8		0.0
	Sample Size	40		76		1
Males	Mean Length (mm)	567	348	599		579
	Std. Error	15.8	0.0	10.7		0.0
	Sample Size	27	1	32		1
Sample date: 09/22						
Females	Mean Length (mm)	619		629	609	620
	Std. Error	8.3		3.3	0.0	11.8
	Sample Size	19		75	1	7
Males	Mean Length (mm)	609		637		600
	Std. Error	11.4		5.4		45.1
	Sample Size	12		59		3

Appendix H.4. Mean length by sex and age of coho salmon from the commercial common property drift gillnet catches in the Bering River District, 1993.

		Brood Year and Age Group		
		1990	1989	1988
		1.1	2.1	3.1
Sample date: 09/05				
Females	Mean Length (mm)	614	614	
	Std. Error	7.1	7.4	
	Sample Size	24	37	
Males	Mean Length (mm)	606	610	630
	Std. Error	5.7	5.4	16.9
	Sample Size	48	55	3
Sample date: 09/16				
Females	Mean Length (mm)	629	612	
	Std. Error	4.2	6.7	
	Sample Size	4	14	
Males	Mean Length (mm)	599	608	
	Std. Error	11.1	9.3	
	Sample Size	9	27	
Sample date: 09/23				
Females	Mean Length (mm)	577	609	672
	Std. Error	6.9	4.7	0.0
	Sample Size	10	62	1
Males	Mean Length (mm)	614	639	
	Std. Error	14.8	6.0	
	Sample Size	6	45	

Appendix H.5. Mean length by sex and age of chinook salmon in the personal-use and subsistence, dip net and fish wheel catches of the upper Copper River near Chitina, 1993.

		Brood Year and Age Group				
		1989	1988	1987		1986
		1.2	1.3	1.4	2.3	2.4
Sample dates: 06/04 - 07/24						
Females	Mean Length (mm)	622	828	842	810	887
	Std. Error	131.5	9.9	23.8	0.0	24.6
	Sample Size	3	18	8	2	3
Males	Mean Length (mm)	653	835	931	915	
	Std. Error	73.3	17.2	20.4	0.0	
	Sample Size	3	11	8	1	

Appendix H.6. Mean length by sex and age of sockeye salmon in the personal-use and subsistence, dip net and fish wheel catches of the upper Copper River near Chitina, 1993.

		Brood Year and Age Group								
		1990		1989		1988			1987	
		0.2	1.1	0.3	1.2	0.4	1.3	2.2	1.4	2.3
Sample dates: 06/04 - 06/13										
Females	Mean length (mm)	478		539	468	550	533	466	530	531
	Std. error	9.2		3.1	3.0	0.0	2.2	5.2	0.0	4.6
	Sample size	4		43	33	1	124	15	2	32
Males	Mean length (mm)		325	558	463		556	483		570
	Std. error		0.0	4.2	11.2		3.0	8.3		7.1
	Sample size		1	37	7		98	4		18
Sample dates: 06/18 - 06/26										
Females	Mean length (mm)	478		530	468		543	478	510	541
	Std. error	4.4		6.3	3.1		1.8	11.2	0.0	6.6
	Sample size	3		18	50		240	3	1	36
Males	Mean length (mm)	445		564	471		564	478	588	542
	Std. error	7.4		5.0	5.8		2.6	14.2	41.7	11.8
	Sample size	4		23	15		163	3	3	11
Sample dates: 07/02 - 07/18										
Females	Mean length (mm)	475		534	460		543			532
	Std. error	15.0		5.2	5.2		1.9			12.1
	Sample size	2		19	36		212			5
Males	Mean length (mm)	465		559	467		560	445		578
	Std. error	0.0		4.8	7.7		2.6	0.0		27.6
	Sample size	1		16	12		146	1		4
Sample dates: 07/23 - 07/31										
Females	Mean length (mm)	475		546	480		545	490		534
	Std. error	0.0		5.9	2.8		1.7	0.0		8.7
	Sample size	1		15	16		270	1		13
Males	Mean length (mm)	450		568	481		569			549
	Std. error	0.0		6.7	4.8		2.2			14.5
	Sample size	1		12	15		191			7

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		Brood Year and Age Group								
		1990		1989		1988			1987	
		0.2	1.1	0.3	1.2	0.4	1.3	2.2	1.4	2.3
Sample dates: 08/06 - 08/14										
Females	Mean length (mm)			510	480		546	485	610	543
	Std. error			0.0	2.6		1.7	0.0	0.0	10.3
	Sample size			1	27		331	1	1	10
Males	Mean length (mm)			585	488		568			595
	Std. error			0.0	2.3		2.6			13.2
	Sample size			1	10		179			3

Appendix H.7. Mean length by sex and age of sockeye salmon escapements to the Copper River delta, 1993.

		Brood Year and Age Group										
		1991	1990		1989			1988		1987		1986
		0.1	0.2	1.1	0.3	1.2	2.1	1.3	2.2	1.4	2.3	2.4
<u>Eyak Lake - South Beaches</u>												
Sample dates: 07/01 - 08/06												
Females	Mean Length (mm)				552	542		546				537
	Std. Error				7.9	43.5		1.1				11.4
	Sample Size				15	2		485				8
Males	Mean Length (mm)		459	331	549	458		543	448			582
	Std. Error		6.7	0.5	29.4	2.9		2.3	0.0			0.0
	Sample Size		3	2	3	73		289	1			2
<u>Eyak Lake - Middle Arm</u>												
Sample dates: 06/11 - 09/13												
Females	Mean Length (mm)		475		545	488		550	502	592	547	
	Std. Error		8.5		2.7	1.1		1.2	20.8	8.5	6.0	
	Sample Size		2		27	264		373	6	6	16	
Males	Mean Length (mm)		450	324	565	462	353	574	476	628	570	
	Std. Error		16.5	5.7	10.5	2.2	26.0	1.9	11.7	3.0	9.6	
	Sample Size		6	29	9	280	2	223	4	2	10	
<u>Eyak Lake - Hatchery Creek</u>												
Sample dates: 08/06 - 08/10												
Females	Mean Length (mm)				552	489		546	488			550
	Std. Error				0.0	3.2		3.1	11.6			4.2
	Sample Size				1	37		73	4			26
Males	Mean Length (mm)			321		446	334	541	447	528	573	531
	Std. Error			2.7		2.2	1.5	9.0	6.8	0.0	11.5	0.0
	Sample Size			37		142	3	43	21	1	15	1
<u>McKinley Lake</u>												
Sample date: 07/20												
Females	Mean Length (mm)				559	491		565	486			540
	Std. Error				5.2	3.2		1.3	0.0			15.0
	Sample Size				19	31		304	1			2
Males	Mean Length (mm)		438	327	584	458		591				
	Std. Error		6.0	3.1	5.0	2.0		2.0				
	Sample Size		16	6	3	137		185				
<u>Twenty-Seven Mile Slough</u>												
Sample date: 07/03												
Females	Mean Length (mm)		529		559	478		558	509			583
	Std. Error		0.0		2.4	8.3		4.8	0.0			0.0
	Sample Size		1		57	24		27	1			1
Males	Mean Length (mm)		440	326	545	447		581				
	Std. Error		2.6	3.4	15.2	1.4		11.3				
	Sample Size		53	8	17	197		5				

-continued-

		Brood Year and Age Group										
		1991	1990		1989			1988		1987		1986
		0.1	0.2	1.1	0.3	1.2	2.1	1.3	2.2	1.4	2.3	2.4
<u>Thirty-Nine Mile Creek</u>												
Sample date: 08/03												
Females	Mean Length (mm)				567	502		564	486		557	
	Std. Error				5.6	2.5		1.9	36.0		4.5	
	Sample Size				21	54		125	2		5	
Males	Mean Length (mm)		465	327	585	456	342	580	451		571	
	Std. Error		23.8	3.9	4.5	2.7	0.0	4.7	21.6		6.3	
	Sample Size		4	42	16	148	1	53	3		5	
<u>Martin Lake</u>												
Sample dates: 07/16 - 07/17												
Females	Mean Length (mm)		444		548	479		537			536	
	Std. Error		0.0		5.1	3.3		1.7			27.0	
	Sample Size		1		17	47		274			2	
Males	Mean Length (mm)	308	476	321	561	441		538				
	Std. Error	0.0	45.8	4.5	5.4	2.2		13.0				
	Sample Size	1	4	9	6	98		16				
<u>Little Martin Lake</u>												
Sample date: 08/26												
Females	Mean Length (mm)				479			542	466			
	Std. Error				1.9			2.6	34.0			
	Sample Size				116			31	2			
Males	Mean Length (mm)		433	313	438	322			427			
	Std. Error		0.0	1.5	1.6	0.0			8.4			
	Sample Size		1	86	185	1			3			
<u>Tokun Lake</u>												
Sample date: 08/25												
Females	Mean Length (mm)				556			550			542	
	Std. Error				0.0			1.3			10.7	
	Sample Size				1			228			6	
Males	Mean Length (mm)				479			582			591	
	Std. Error				15.5			1.3			5.3	
	Sample Size				11			220			5	
<u>Martin River Slough</u>												
Sample dates: 06/24 - 06/25												
Females	Mean Length (mm)		471		551			551				
	Std. Error		19.5		5.4			4.3				
	Sample Size		2		18			31				
Males	Mean Length (mm)	315	431	337	541	440		592				
	Std. Error	0.0	2.0	7.2	18.1	5.4		10.8				
	Sample Size	1	95	7	6	40		10				

Appendix H.8. Mean length by sex and age of sockeye salmon escapements to the Bering River drainage, 1993.

		Brood Year and Age Group								
		1990		1989			1988		1987	
		0.2	1.1	0.3	1.2	2.1	1.3	2.2	1.4	2.3
<b><u>Bering Lake</u></b>										
Sample date: 07/13										
Females	Mean Length (mm)			543	490		550		559	531
	Std. Error			2.7	3.6		1.3		9.9	0.0
	Sample Size			47	24		266		5	1
Males	Mean Length (mm)	423	320	560	439		566		522	
	Std. Error	4.5	7.5	6.5	3.4		3.5		77.0	
	Sample Size	2	3	16	98		74		2	
<b><u>Kushtaka Lake</u></b>										
Sample date: 08/12										
Females	Mean Length (mm)			462			515	463		514
	Std. Error			1.6			1.7	2.5		2.7
	Sample Size			94			125	31		33
Males	Mean Length (mm)		318	460	324		522	463		521
	Std. Error		3.1	1.7	3.1		2.6	3.1		4.2
	Sample Size		16	126	18		67	23		22



Appendix H.9. Mean length by sex and age of sockeye salmon from commercial common property gillnet catches in the Eshamy District of Prince William Sound, 1993.

		Brood Year and Age Group				
		1989	1990		1991	
		1.2	1.3	2.2	1.4	2.3
Sample dates:		06/21 - 06/22				
Females	Mean Length (mm)	523	575		595	
	Std. Error	7.0	2.4		0.0	
	Sample Size	5	49		1	
Males	Mean Length (mm)	500	581	549	547	
	Std. Error	21.4	6.2	5.0	0.0	
	Sample Size	3	29	2	1	
Sample date:		06/28				
Females	Mean Length (mm)	527	565	535	537	
	Std. Error	2.6	1.6	9.5	7.0	
	Sample Size	62	145	10	3	
Males	Mean Length (mm)	534	576	523	595	578
	Std. Error	2.8	3.0	7.4	0.0	6.6
	Sample Size	85	63	11	1	7
Sample date:		07/05				
Females	Mean Length (mm)	525	570	534	571	
	Std. Error	2.0	1.8	1.5	5.4	
	Sample Size	91	105	2	9	
Males	Mean Length (mm)	538	583	550	563	
	Std. Error	1.9	3.8	6.3	19.7	
	Sample Size	103	51	5	5	

Appendix H.10. Mean length by sex and age of sockeye salmon from commercial common property catches in the Coghill District of Prince William Sound, 1993.

		Brood Year and Age Group						
		1990	1989		1988		1987	
		1.1	0.3	1.2	1.3	2.2	1.4	2.3 3.2
Sample dates:		06/21 - 06/22						
Females	Mean Length (mm)			530	574	544		574 546
	Std. Error			5.0	2.3	3.0		6.7 0.0
	Sample Size			8	58	5		7 1
Males	Mean Length (mm)		601	541	593	551	533	609
	Std. Error		0.0	7.6	3.2	15.0	0.0	9.4
	Sample Size		1	14	33	5	1	5
Sample dates:		06/28 - 06/29						
Females	Mean Length (mm)			522	570	528	609	559
	Std. Error			4.6	3.2	7.2	0.0	9.7
	Sample Size			22	45	7	1	8
Males	Mean Length (mm)			539	583	549		572
	Std. Error			4.2	3.3	7.0		6.6
	Sample Size			38	34	7		4
Sample date:		07/05						
Females	Mean Length (mm)			526	573	526		544
	Std. Error			3.2	3.8	11.9		26.0
	Sample Size			32	36	3		2
Males	Mean Length (mm)	335		531	583	543		562
	Std. Error	0.0		3.5	6.2	8.3		0.0
	Sample Size	1		59	28	8		1
Sample date:		08/07						
Females	Mean Length (mm)			543	566	547		
	Std. Error			4.3	4.4	11.7		
	Sample Size			37	4	3		
Males	Mean Length (mm)			559	592	573		
	Std. Error			4.0	13.4	0.0		
	Sample Size			36	5	1		

Appendix H.11. Mean length by sex and age of sockeye salmon from commercial common property purse seine catches in the Southwestern District of Prince William Sound, 1993.

		Brood Year and Age Group						
		1990		1989		1988		1987
		0.2	1.1	0.3	1.2	1.3	2.2	2.3
Sample date: 08/07								
Females	Mean Length (mm)			546		530	533	
	Std. Error			2.1		19.2	8.5	
	Sample Size			71		3	3	
Males	Mean Length (mm)		405	563		578	562	
	Std. Error		5.1	2.9		6.7	9.2	
	Sample Size		11	53		16	5	
Sample dates: 08/20 - 08/21								
Females	Mean Length (mm)	539	402	497	545	550	519	551
	Std. Error	0.0	0.0	0.0	2.0	15.6	18.0	0.0
	Sample Size	1	1	1	81	4	2	1
Males	Mean Length (mm)		394		568	600	575	
	Std. Error		5.1		2.8	11.4	13.8	
	Sample Size		10		67	5	5	

Appendix H.12. Mean length by sex and age of sockeye salmon from commercial common property catches in the Eshamy, Coghill, and Southwestern Districts of Prince William Sound, 1993.

		Brood Year and Age Group								
		1990		1989		1988		1987		
		0.2	1.1	0.3	1.2	1.3	2.2	1.4	2.3	3.2
<b><u>Eshamy District</u></b>										
Sample dates: 06/21 – 07/05										
Females	Mean Length (mm)				526	568	535		565	
	Std. Error				1.5	1.1	7.8		6.2	
	Sample Size				158	299	12		13	
Males	Mean Length (mm)				536	580	533	595	570	
	Std. Error				1.7	2.3	5.7	0.0	8.3	
	Sample Size				191	143	18	1	13	
<b><u>Coghill District</u></b>										
Sample dates: 06/21 – 08/07										
Females	Mean Length (mm)				532	572	535	609	564	546
	Std. Error				2.4	1.7	4.2	0.0	6.1	0.0
	Sample Size				99	143	18	1	17	1
Males	Mean Length (mm)		335	601	541	587	548	533	590	
	Std. Error		0.0	0.0	2.3	2.4	5.2	0.0	8.3	
	Sample Size		1	1	147	100	21	1	10	
<b><u>Southwestern District</u></b>										
Sample dates: 08/07 – 08/21										
Females	Mean Length (mm)	539	402	497	546	541	527		551	
	Std. Error	0.0	0.0	0.0	1.4	11.7	8.1		0.0	
	Sample Size	1	1	1	152	7	5		1	
Males	Mean Length (mm)		400		566	583	568			
	Std. Error		3.8		2.0	6.0	8.1			
	Sample Size		21		120	21	10			

Appendix H.13. Mean length by sex and age of chum salmon from commercial common property gillnet catches in the Eshamy District of Prince William Sound, 1993.

		Brood Year and Age Group		
		1989	1988	1987
		0.3	0.4	0.5
Sample date: 06/22				
Females	Mean Length (mm)	572	584	
	Std. Error	4.5	7.0	
	Sample Size	27	24	
Males	Mean Length (mm)	578	592	
	Std. Error	13.3	7.1	
	Sample Size	7	17	
Sample dates: 06/28 - 06/29				
Females	Mean Length (mm)	552	577	
	Std. Error	3.7	7.3	
	Sample Size	41	8	
Males	Mean Length (mm)	576	592	588
	Std. Error	7.8	31.1	0.0
	Sample Size	11	3	1
Sample dates: 07/05				
Females	Mean Length (mm)	559	574	550
	Std. Error	2.2	5.3	0.0
	Sample Size	149	22	1
Males	Mean Length (mm)	575	585	
	Std. Error	4.5	8.0	
	Sample Size	28	5	

Appendix H.14. Mean lengths of pink salmon from sampled commercial common property, hatchery cost recovery, and test fish catches in Prince William Sound, by district, 1993.

Week	Dates	Mean Length (mm)						Test Fish
		Northern District		Coghill District		Southwestern District		
		CPH <sup>a</sup>	HCR <sup>b</sup>	CPH	HCR	CPH	HCR	
26	06/20 – 06/26							
27	06/27 – 07/03							
28	07/04 – 07/10							
29	07/11 – 07/17							
30	07/18 – 07/24							
31	07/25 – 07/31							445
32	08/01 – 08/07			452	439	443		
33	08/08 – 08/14					452		
34	08/15 – 08/21		445	460		450		
35	08/22 – 08/28					462		

<sup>a</sup> Common property harvest.

<sup>b</sup> Hatchery cost recovery.

Appendix H.15. Mean length by sex and age of sockeye salmon from escapements to Prince William Sound, 1993.

		Brood Year and Age Group									
		1990		1989		1988		1987			1986
		0.2	1.1	0.3	1.2	1.3	2.2	1.4	2.3	3.2	3.3
<u>Coghill Weir</u>											
Sample dates: 06/27 - 08/06											
Females	Mean Length (mm)	517		554	518	565	526	579	564	530	570
	Std. Error	7.8		18.2	2.3	1.0	3.5	5.0	3.3	0.0	5.0
	Sample Size	9		4	73	498	18	10	34	2	2
Males	Mean Length (mm)	522		580	526	584	535	605	581	570	555
	Std. Error	7.7		20.0	4.2	0.8	4.6	4.4	3.8	0.0	0.0
	Sample Size	7		2	59	838	32	29	42	1	1
<u>Eshamy Weir</u>											
Sample dates: 07/23 - 08/29											
Females	Mean Length (mm)	519			536	578	545		568		
	Std. Error	24.6			1.1	2.9	1.8		10.1		
	Sample Size	5			518	110	182		7		
Males	Mean Length (mm)	546	414		555	594	563		591		
	Std. Error	11.0	0.5		2.1	3.7	3.0		11.6		
	Sample Size	2	2		228	90	130		4		

Appendix H.16. Mean length by sex and age of chinook salmon brood stock escapements  
at Wally Noerenberg Hatchery, 1993.

		Brood Year and Age Group		
		1990	1989	1988
		1.1	1.2	1.3
Sample date: 07/27				
Females	Mean Length (mm)	430		807
	Std. Error	0.0		5.0
	Sample Size	1		66
Males	Mean Length (mm)		870	819
	Std. Error		20.0	5.3
	Sample Size		3	49



Appendix H.17. Mean length by sex and age of chum salmon brood stock escapements at Wally Noerenberg Hatchery, 1993.

		Brood Year and Age Group		
		1989	1988	1987
		0.3	0.4	0.5

Sample date: 07/05

Females	Mean Length (mm)	566	574	590
	Std. Error	9.8	6.1	0.0
	Sample Size	8	98	1
Males	Mean Length (mm)	568	586	545
	Std. Error	13.0	4.2	0.0
	Sample Size	8	84	1

Sample date: 07/12

Females	Mean Length (mm)	557	570
	Std. Error	4.3	2.9
	Sample Size	33	110
Males	Mean Length (mm)	558	577
	Std. Error	7.4	4.7
	Sample Size	18	45

Appendix H.18. Mean length by sex and age of chum salmon brood stock escapements at Solomon Gulch Hatchery, 1993.

		Brood Year and Age Group	
		1988	1987
		0.4	0.5
Sample Date: 08/14			
Females	Mean Length	603	583
	Std. Error	3.6	0.0
	Sample Size	94	1
Males	Mean Length	645	
	Std. Error	6.2	
	Sample Size	33	
Sample Date: 08/23			
Females	Mean Length	549	595
	Std. Error	15.0	2.5
	Sample Size	2	102
Males	Mean Length		606
	Std. Error		7.0
	Sample Size		33

**Appendix I**  
**Average Weights of Salmon in the Copper/Bering Rivers**  
**and Prince William Sound Commercial Catches**

Appendix I.1. Average salmon weights from the commercial common property gillnet and purse seine fisheries in the Copper/Bering and Prince William Sound areas, 1993.

Area/Gear	District or Hatchery Name	Location code	Average weight (kg) <sup>a</sup>				
			Chinook	Sockeye	Coho	Pink	Chum
<b><u>Copper/Bering River Area</u></b>							
Commecial Common	Copper River	212	9.76	2.62	3.57	1.62	2.94
Property Drift Gillnet	Bering River	200	9.41	2.64	3.46	1.72	2.76
<b><u>Prince William Sound Area</u></b>							
Commercial Common	Coghill	223	7.33	2.77	3.28	1.53	3.05
Property Drift Gillnet	Eshamy	225	5.78	2.71	3.68	1.55	3.08
	Unakwik	229	8.71	2.81	2.61	1.27	2.71
Commercial Common	Eshamy	225	7.21	2.65	3.59	1.53	3.07
Property Set Gillnet							
Commercial Common	Northern	222	1.81	2.55	3.02	1.25	3.37
Property Purse Seine	Coghill	223	4.27	2.70	3.26	1.25	2.83
	Southwestern	226	6.76	2.67	3.31	1.30	2.90
	Unakwik	229	N/A	2.35	N/A	1.22	2.43
Hatchery Cost	Solomon Gulch	221-61	6.98	2.42	3.26	1.33	3.05
Recovery Harvest <sup>b</sup>	Cannery Creek	222-21	N/A	1.96	N/A	1.19	2.71
	Wally Noerenberg	223-41	6.75	2.38	2.34	1.21	2.55
	Armin F. Koernig	226-62	N/A	2.29	N/A	1.19	2.45
	Main Bay	225-21	N/A	1.92	N/A	1.32	2.17
Confiscated Sales	All Districts Combined		8.16	2.63	3.19	N/A	3.09
Test Fishery	All Districts Combined		7.54	2.67	3.39	1.23	2.83
Test Fishery	Coghill District	223	3.63	2.55	3.17	1.58	2.92
Test Fishery	Eshamy District	225	5.97	2.70	3.37	1.71	2.73

<sup>a</sup> Typically during each fishing period a portion of each delivery to a tender boat is counted into a brailer bag, weighed, and the average weight is computed by dividing the net weight of the brailer bag load by the number of fish. This average is used to estimate the number of fish in the total delivery. The average weight in this table is based on the total weight of the catch by species, gear type, and fishery from fish ticket summaries divided by the total number of fish sold by species, gear type, and fishery as reported on fish tickets.

<sup>b</sup> Harvest is from purse seines.